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Thirty-Sixth Biennial Report  
OF THE  
NORTH CAROLINA  
STATE BOARD OF HEALTH



JULY 1, 1954—JUNE 30, 1956



# MEMBERS OF THE STATE BOARD OF HEALTH

Elected by the Medical Society of the State of North Carolina

G. GRADY DIXON, M.D.,  
Term expires 1959

JOHN R. BENDER, M.D.,  
Term expires 1957

BEN J. LAWRENCE, M.D.,  
Term expires 1957

G. CURTIS CRUMP, M.D.,  
Term expires 1959

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## Appointed by the Governor

A. C. CURRENT, D.D.S.,  
Term expires 1957

H. C. LUTZ, Ph.G.,  
Term expires 1959

MRS. J. E. LATTA,  
Term expires 1957

JOHN P. HENDERSON, JR., M.D.,  
Term expires 1959

\* LENOX D. BAKER, M.D.,  
Term expires 1957

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## EXECUTIVE COMMITTEE

G. Grady Dixon, M.D., *Chairman*

Ben J. Lawrence, M.D., *Vice President*

John R. Bender, M.D.

J. W. R. Norton, M.D., *Secretary*

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## EXECUTIVE STAFF AS OF JUNE 30, 1956

J. W. R. NORTON, M.D., M.P.H., *Secretary and State Health Officer*

JOHN H. HAMILTON, M.D., *Assistant State Health Officer and Director  
Laboratory of Hygiene Division*

ERNEST A. BRANCH, D.D.S., *Director Oral Hygiene Division*

J. M. JARRETT, B.S., *Director Sanitary Engineering Division*

C. C. APPLEWHITE, M.D., *Director Local Health Division*

A. H. ELLIOT, M.D., *Director Personal Health Division*

FRED T. FOARD, M.D., *Director Epidemiology Division*

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\* Dr. Baker appointed to fill unexpired term of Dr. Hubert B. Haywood, who retired January, 1956.

# STATE BOARD OF HEALTH

5 members appointed by Governor (G)—4 members elected by State Medical Society (S)—4 year terms

## BOARD MEMBERS

BEN J. LAWRENCE, M.D.	G. Grady Dixon, M.D. (S) President	.....Ayden	
JOHN R. BENDER, M.D.	(S) Vice-Pres. Raleigh	H. C. LUTZ, Ph.G.	(G) ..... Hickory
A. C. CURRENT, D.D.S.	(S) ..... Winston-Salem	MRS. J. E. LATTA	(G) ..... Hillsboro, Rt. 1
G. CURTIS CRUMP, M.D.	(G) ..... Gastonia	JOHN P. HENDERSON, Jr., M.D.	(G) ..... Sneads Ferry
	(S) ..... Asheville	LENOX D. BAKER, M.D.	(G) ..... Durham
	J. W. R. NORFON, M.D., <i>Secretary and State Health Officer</i>		
	JOHN H. HAMILTON, M.D., <i>Assistant Secretary and State Health Officer</i>		

## PERSONAL HEALTH DIVISION

A. H. ELLIOT, M.D.

Cancer Section  
Crippled Children Section  
Heart Disease Section  
Maternal & Child Health Section  
Nutrition Section

## CENTRAL ADMINISTRATION

(Admin. Asst.)  
Budgets  
Files  
Film Library  
Personnel  
Printing—Mailing  
Public Health Library  
Public Relations

## LABORATORY DIVISION

J. H. HAMILTON, M.D.

Approval of Laboratories  
Biologies  
Chemistry  
Cultures  
Cytology  
Microscopy  
Serology  
Virology  
Water

## EPIDEMIOLOGY DIVISION

FRED T. FOARD, M.D.

Accident Prevention (Home-Farm)  
Acute Communicable Disease Section  
Occupational Health  
Public Health Statistics Section  
Tuberculosis Section  
Venereal Disease Section  
Veterinary Public Health Section

## SANITARY ENGINEERING DIVISION

J. M. JARRETT, B.S.

Engineering Section  
Insect & Rodent Control Section  
Bedding  
Sanitation Section  
Environmental  
Milk  
Public Eating Places  
Shellfish

## ORAL HYGIENE DIVISION

E. A. BRANCH, D.D.S.

Consultation  
Correction  
Education  
Lectures  
Literature  
Visual  
Prevention

## LOCAL HEALTH DIVISION

C. C. APPLEWHITE, M.D.

Administrative Section  
Health Education Section  
Mental Health Section  
Public Health Nursing Section  
School Health Section (School Health Coordinating Service—Jointly with Education Dept.)

Effective February 1, 1959  
Revised November 22, 1952  
Revised June 1, 1956



# LOCAL HEALTH OFFICERS IN NORTH CAROLINA

N. C. State Board of Health, Local Health Division  
Raleigh, N. C.

SEPTEMBER 28, 1956

DEPARTMENT	HEALTH OFFICER	ADDRESS
Alamance	Dr. W. L. Norville	Burlington
Alleghany-Ashe- Watauga	Dr. M. B. H. Michal	Boone
Anson	Dr. Warren D. Carter, Act. P. T.	Wadesboro
Avery-Yancey-Mitchell	Dr. Cameron F. McRae	Burnsville
Beaufort	Dr. L. E. Kling	Washington
Bertie	Dr. W. S. Cann	Windsor
Bladen		Elizabethtown
Brunswick	Dr. C. B. Davis	Southport
Buncombe	Dr. H. W. Stevens	Asheville Box 7525
Burke	Dr. G. F. Reeves	Morganton
Cabarrus	Dr. J. Roy Hege	Concord
Caldwell	Dr. William Happer	Lenoir
Carteret	Dr. Luther Fulcher, Act. P.T.	Beaufort
Catawba-Lincoln- Alexander	Dr. William H. Bandy	Newton
Cherokee-Clay-Graham	Dr. Robert R. King, Sr.	Murphy
Cleveland	Dr. Z. P. Mitchell	Shelby
Columbus	Dr. Floyd Johnson	Whiteville
Craven	Dr. E. D. Hardin	New Bern
Cumberland	Dr. M. T. Foster	Fayetteville
Currituck-Dare	Dr. W. W. Johnston	Currituck
Davidson	Dr. J. W. Varner	Lexington
Davie-Yadkin	Dr. Fred G. Pegg	Mocksville
Duplin	Dr. John F. Powers	Kenansville
Durham	Dr. J. H. Epperson	Durham
Edgecombe	Dr. W. A. Browne	Tarboro
Forsyth	Dr. Fred G. Pegg	Winston-Salem
Franklin	Dr. A. J. Holton	Louisburg
Gaston		Gastonia
Granville	Dr. Fred J. Wampler	Oxford
Greene	Dr. Arthur S. Chesson, Jr.	Snow Hill
Guilford	Dr. E. H. Ellinwood	Greensboro
Halifax	Dr. Robert F. Young	Halifax
Harnett	Dr. W. B. Hunter	Lillington
Haywood	Dr. Raymond K. Butler	Waynesville
Henderson-Transyl- vania	Dr. J. D. Lutz, Act. P.T. Dr. C. L. Newland, Act. P.T.	Hendersonville Brevard
Hertford-Gates	Dr. James A. Fields	Winton
Hoke	Dr. J. W. Willcox	Raeford
Hyde	Dr. W. W. Johnston	Swan Quarter
Iredell	Dr. Ernest Ward	Statesville
Jackson-Macon-Swain	Dr. Guy V. Gooding	Sylva
Johnston	Dr. E. S. Grady	Smithfield
Jones	Dr. R. J. Jones	Trenton
Lenoir	Dr. R. J. Jones	Kinston
McDowell	Dr. W. F. E. Loftin	Marion

Madison	Dr. H. W. Stevens	Marshall
Martin	Dr. Samuel A. Graham, Jr.	Williamston
Mecklenburg	Dr. M. B. Bethel	Charlotte
Montgomery	Dr. R. E. Fox	Troy
Moore	Dr. J. W. Willcox	Carthage
Nash	Dr. J. S. Chamblee	Nashville
New Hanover	Dr. C. B. Davis	Wilmington
Northampton	Dr. W. R. Parker	Jackson
Onslow	Dr. Eleanor H. Williams	Jacksonville
Orange-Person- Chatham-Lee	Dr. O. David Garvin	Chapel Hill
Pamlico	Dr. L. E. Kling	Bayboro
Pasquotank-Perqui- mans- Camden- Chowan	Dr. B. B. McGuire	Elizabeth City
Pender	Dr. N. C. Wolfe, Act. P.T.	Burgaw
Pitt	Dr. Walter C. Humbert	Greenville
Randolph	Dr. H. C. Whims	Asheboro
Richmond	Dr. J. L. Harris	Rockingham
Robeson	Dr. E. R. Hardin	Lumberton
Rockingham-Caswell	Dr. Miles J. O. Gullingsrud	Spray
Rowan	Dr. C. W. Armstrong	Salisbury
Rutherford-Polk	Dr. G. O. Moss	Rutherfordton
Sampson	Dr. M. L. Gray, Act. P.T.	Clinton
Scotland	Dr. K. C. Moore	Laurinburg
Stanly	Dr. R. E. Fox	Albemarle
Surry	Dr. M. Elizabeth Moore, Act. P.T.	Danbury
Stokes	Dr. R. B. C. Franklin	Mount Airy
Tyrrell-Washington	Dr. Claudius McGowan, Act. P.T.	Plymouth
Union	Dr. Clem Ham	Monroe
Vance	Dr. A. D. Gregg	Henderson
Wake	Dr. A. C. Bulla	Raleigh
Warren	Dr. A. D. Gregg	Warrenton
Wayne	Dr. Arthur S. Chesson, Jr.	Goldsboro
Wilkes		Wilkesboro
Wilson	Dr. Joseph L. Campbell	Wilson
Charlotte, City of	Dr. M. B. Bethel	Charlotte
Rocky Mount, City of	Dr. J. Allen Whitaker, Act. P.T.	Rocky Mount

## LETTER OF TRANSMITTAL

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The Honorable Luther Hodges  
Governor of North Carolina  
The State Capitol  
Raleigh, North Carolina

Dear Governor Hodges:

Pursuant to the provisions of Section 130-3, General Statutes of North Carolina, I herewith submit to you, and through you, to the General Assembly of North Carolina, the Biennial Report of the North Carolina State Board of Health for the fiscal years of July 1, 1954-June 30, 1956.

Respectfully submitted

J. W. R. NORTON, M.D.,

*Secretary and State Health Officer*

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# REPORT OF THE SECRETARY-TREASURER AND STATE HEALTH OFFICER

July 1, 1954—June 30, 1956

Abridged report of the activities of the State  
Board of Health as recorded in the Minutes:

July 1, 1954. The first quarterly meeting of the North Carolina State Board of Health for the biennium July 1, 1954-June 30, 1956, was held on Thursday, July 1, 1954, at 10:30 a.m., in the auditorium of the State Laboratory of Hygiene Building, with President G. Grady Dixon, presiding. The meeting was called to order by President Dixon.

Upon motion duly made and seconded, the Minutes of the May 5 meeting were approved, without being read, since all members had previously received a copy.

Dr. Hamilton made a further progress report regarding the Medical Library, as to the lighting system, acoustics, painting and other repairs, including a request to the Board of Buildings and Grounds for the privilege of having the Library air-conditioned. This request has not been granted so far. Dr. Hamilton also stated that Mr. John M. Gibson had been elected Librarian, effective as of June 1, 1954. He comes from the Alabama Health Department and was born at Gibson, North Carolina.

Dr. Hamilton and Mr. Jarrett discussed further progress on moving into the new Cooper Memorial Health Building. Mr. Jarrett reported on plans, length of time to move, etc., which he had discussed with the Transfer Company. Dr. Hamilton said that the final inspection of the Building was held on June 22 by the Board of Buildings and Grounds, architects, budget engineers and others, and that the Building was accepted with the exception of the basement, the pent house and the heating tunnel and had now been turned over to the Board of Buildings and Grounds which Board could now have the telephones installed.

Secretary Norton reported on the N. C. Public Health Association meeting which is to be held in Raleigh, September 23-25, 1954. The Board discussed plans for the dedication of the Cooper Memorial Health Building, time and place of a regular Board meeting at the time of the NCPHA meeting, etc., but no decisions were made. The Board asked the Executive Committee to work out, with the NCPHA, a definite program and advise the members later.

Dr. C. C. Applewhite, Director, Local Health Division, was present and discussed a suggested amendment to the Policies of the North Carolina State Board of Health for Allocation of State Aid Funds to Local Health Units, effective July 1, 1954. The additional paragraph related to the employment of a part-time Health Officer, etc. It was moved by Mr. Lutz, seconded by Mrs. Latta and unanimously carried, that the following paragraph be inserted after the second paragraph in the policies governing allocation of State Aid Funds to local health units:

"When any local health department is temporarily without the services of a full-time health officer and it becomes necessary to employ a part-time health officer, pending the selection of a full-time health officer meeting Merit System qualifications, the salary of the part-time health officer shall be determined on the percentage of full time spent in activities of the health department. The maximum salary that may be paid the part-time health officer shall not exceed one-half of the salary of a full-time health officer having the same Merit System classification."

In a further discussion regarding bulk milk dispensers, Mr. Jarrett presented some revised regulations governing the sanitation of restaurants, summer camps and private institutions which were effected by the use of the approved bulk milk dispensers. On motion of Dr. Lawrence, seconded by Mrs. Latta, revisions to Section 6, Item 17 of the Law, Rules and Regulations and Code Governing the Sanitation of Restaurants and Other Food Handling Establishments, Section 7, Item 10 of the Law, Rules and Regulations Governing the Sanitation of Summer Camps, Section 6, Item 16, of the Law, Rules and Regulations and Code Governing the Sanitation of Private Hospitals, Sanatoriums, Sanitariums and Education Institutions are hereby amended in accordance with the action taken by the Board of Health at its meeting in Pinehurst, N. C., May 5, 1954, which permitted the use of approved bulk milk dispensers in those places desiring to use them. Motion carried. (Copy of amendments filed in Minute Book)

Mr. Jarrett presented a request concerning the extension of the boundary lines of the Roanoke Rapids Sanitary District and also the Town of Roanoke Rapids. He stated that all documents had been carefully examined and checked and that proper procedures had been followed in accordance with requirements of the General Statutes for the extension of sanitary district boundaries, and that he recommended favorable action by the Board. On motion of Dr. Lawrence, seconded by Mr. Lutz, the resolutions approving the extension of the boundary lines of the Roanoke Rapids Sanitary District in Halifax County and also the Town of Roanoke Rapids, were unanimously approved. (Copy filed in Minute Book)

Dr. Fred T. Foard, Director of the Division of Epidemiology gave a very interesting and informative talk on the overall activities and accomplishments of the Division. He then introduced the seven Section Chiefs in the Division, each of which has specific functions to perform in relation to the control of disease or injury. These sections are: (1) Public Health Statistics; (2) Communicable Disease Control; (3) Tuberculosis Control; (4) Veterinary Public Health; (5) Industrial Hygiene; (6) Venereal Disease Control; (7) Accident Prevention. In addition, the Division is conducting a temporary study of crash automobile accidents in cooperation with the State Motor Vehicles Department and sponsored by the Cornell University Medical College and the Kellogg Foundation. Also, the Division is charged with the collection of reports of narcotic addicts in North Carolina. Each Section Chief presented a brief but concise report of the work in his respective Section.

On the use of gamma globulin as polio preventive, Dr. Hamilton stated that he had received a shipment of 95,000 cc. of gamma globulin for distribution, on request of Dr. Foard, as Director of Epidemiology.

Dr. Foard stated that he is attempting to recommend distribution of gamma globulin to conform with recommendations of the National Foundation for Infantile Paralysis, Inc.—that is, for use against polio only in groups larger than single family groups. He stated that one shipment has been sent out this year to Rockingham for use in treating neighborhood contacts to an active case of polio, the diagnosis of which has been confirmed by staff at Duke University Hospital.

Miss Mae Reynolds, Budget Officer, presented and discussed briefly the budgets for 1954-1955. Dr. Norton expressed appreciation to Miss Reynolds for the excellent work she has done over the years and is doing as Budget Officer.

Dr. Norton announced that he would be glad to have each one visit the new Health Building offices and Library before leaving.

#### **September 24, 1954.**

The State Board of Health met in quarterly session in the Board Room, in the Cooper Memorial Health Building, Friday afternoon, September 24 at 2:00 o'clock, Dr. G. Grady Dixon of Ayden, President, presiding. This was the first regular meeting of the Board in the Cooper Memorial Health Building which is the first State Health Office Building designed and constructed specifically for public health work in North Carolina.

Following the call to order, the Minutes of the previous session, held in Raleigh, July 1, 1954, which had been circulated among the members, were unanimously approved.

Dr. J. W. R. Norton, Secretary, then presented a progress report on bulk milk dispensers. It was pointed out that the use of such dispensers was approved by the State Board of Health, in session at Pinehurst, May 5, 1954. The State Board of Agriculture, in August, adopted a set of regulations concerning the use of bulk milk dispensers which provided that the amount dispensed should be no less than 8 fluid ounces, and that no milk dispenser should be offered for sale or put into use in this State which was not so built as to make possible the attachment of a measuring device. Such a provision was not included in the regulations adopted by the State Board of Health. The Board, advised of the regulations adopted by the State Board of Agriculture, decided that further action on its part was unnecessary at this time. Mr. John Andrews, Chief of the Sanitation Section, served on a committee advising with the Board of Agriculture in drawing up its regulations.

The Board then took up the question of issuing an order for the town of Pembroke to construct a sewage treatment plant. Mr. William McKimmon explained the matter briefly and concisely. Upon motion of Dr. Lawrence, seconded by Dr. Henderson, a resolution was adopted ordering the town of Pembroke to construct a new sewage treatment plant and necessary appurtenances. (Copy of Order filed in Minute Book)

The Board heard a report on the revised Communicable Disease Regulation 40, relating to Psittacosis, copies of which had been sent to each Board member several days previously. The matter was presented by Dr. Fred T. Foard and explained by Dr. Martin P. Hines, Chief of the Veterinary Public Health section of the Division of Epidemiology. He advised the

Board that, although there is no provision for paying an indemnity to merchants whose birds are confiscated and killed when suspected of having psittacosis, Mr. Ralph Moody, Assistant Attorney General, had assured him that the department of the Attorney General would stand back of the State Board of Health in the enforcement of the amended regulation for the control of psittacosis. (Copy of Revision of Communicable Disease Regulation 40 Relating to Psittacosis filed in Minute Book)

It was pointed out that, while it was the intention of the General Assembly that the new Health Building should be named the George Marion Cooper Memorial Health Building, Chapter 76 authorized the State Board of Health to do so,—making ratification necessary on the part of the Board. Upon motion of Dr. Lawrence, seconded by Dr. Henderson, the Board unanimously passed the following resolution:

"That, in conformity with Chapter 76 of the 1951 Session Laws, ratified on the 20th day of February, 1951, we do hereby name the new Health Building on North McDowell Street, the George Marion Cooper Memorial Health Building."

Following the above order of business, Dr. E. A. Branch, Director of the Oral Hygiene Division, appeared before the Board with visual demonstrations of the objectives and accomplishments of his Division. While Dr. Branch's appearance called for no official action on the part of the Board, those present unanimously expressed their approval of his efforts and their appreciation of the work that he and his staff have accomplished in behalf of the school children of North Carolina. Dr. Branch emphasized the difficulty of obtaining adequate personnel for the administration of the State's Oral Hygiene program. While there seemed no answer, at present, to this dilemma, the hope was expressed that, through a continuation of effort, including education, young dentists yet may be prevailed upon to fill the vacancies in which they can render great service to the children of North Carolina.

The Board adjourned to attend a reception at the Executive Mansion, complimentary to the members of the North Carolina Public Health Association, assembled in Raleigh for their 43rd annual meeting.

#### January 25, 1955.

The North Carolina State Board of Health met in regular quarterly session, Tuesday, January 25, 1955, at 10:00 a.m. in the Board Room of the Cooper Memorial Health Building, with President Dixon presiding. The meeting was called to order by President Dixon.

Minutes of the Board meeting held on September 24, 1954, were approved as circulated to the members of the Board by the Secretary.

Secretary Norton gave a brief report on the conference of local health officers held on January 18th. He stated that the attendance was good and a number of subjects were discussed informally pertaining to matters of current interest to the health officers regarding the budget for the next biennium, proposed legislation, and the polio vaccine (Salk). Also, the Secretary made a report on the Cancer Survey and Dr. Hamilton and Mr. John M. Gibson gave a progress report on the Library. Honorable Luther H. Hodges, Governor of North Carolina, appeared before the local health



officers at 2:30 at their afternoon session, and gave them a very interesting and stimulating talk on public health, praising the work they were doing and complimenting them on the distinctive and worthwhile service being accomplished in the State.

At this point, Governor Hodges honored the Board of Health with a visit. He was presented by President Dixon, who expressed his appreciation that the Governor had accepted Secretary Norton's invitation to be present at the Board meeting on this occasion. The Governor stated that he was very happy to be present, that he was trying to see as many of the important boards as possible, and that he certainly would include the Board of Health of North Carolina as one of these; that he has known of the work of the State Board of Health since he was a young man. "I think," he continued, "you are the kind of dedicated people who do a great humanitarian job." He repeated a statement made to the local health officers, when he declared that if each would spend the state money as though he was paying for the job himself, he would get an additional thrill at the end of each day's work. The Governor discussed the current state budget and said he recently startled a group by declaring that North Carolina, within a few years, will be a billion dollar state when funds from all sources are counted. "Health and education," he stated, "must move with our population growth. In these fields, we must recognize and meet the problems of our new children. As we move forward in big figures, we must also move along in our services to the people." He said, in conclusion: "I bring you greetings and thank you and the others, in the name of North Carolina, for the services rendered." Dr. Dixon thanked the Governor for his visit.

At the conclusion of Governor Hodges' address, it was pointed out that this was the first time within the recollection of anyone present that a Governor had attended a meeting of the Board. In view of this, Dr. Ben J. Lawrence moved that the Board adopt a resolution, expressing appreciation not only of Governor Hodges' visit, but of his remarks, in which he expressed appreciation for public health work in North Carolina and called for a rededication to the service of humanity, and that a copy be sent to the Governor and also spread on the Minutes of the Board. Motion was seconded by Dr. Crump and carried unanimously.

Dr. Charles M. Cameron of the Epidemiology Division, made photographs of the Board with the Governor. Dr. John Bender asked that a copy be sent to each member and also that the Board go on record as expressing appreciation for Dr. Cameron's services.

Dr. Dixon mentioned the regrettable accident of Miss Mae Reynolds, the budget officer, who had the misfortune of falling on the snow and fracturing a hip. A note expressing the Board's deep appreciation for her faithful services and wishing for her a speedy and uneventful recovery was signed by each and forwarded to her,—in addition to flowers.

Dr. B. M. Drake of the Local Health Division, in which the School Health Coordinating Service is lodged, had prepared a brief report on this joint Service with the Education Department. There were discussions by Doctors Hamilton, Applewhite and Branch, but no action taken, Secretary Norton stated that the School Health Work was also being studied by an Advisory

Committee from the Medical Society and the State Dental Society and that they may have a report to make in the near future.

Dr. Hamilton gave a report on the progress of the Medical Examiner Bill which is to be introduced in the General Assembly, a copy of which has been sent to each member of the Board, and to be known as A BILL TO BE ENTITLED AN ACT TO REVISE THE LAWS OF NORTH CAROLINA WITH RESPECT TO POSTMORTEM MEDICOLEGAL EXAMINATIONS.

Dr. Cameron brought greetings from Dr. Foard, the Director of the Epidemiology Division, who was delayed. He also discussed tentative items of proposed legislation which might be brought up before the General Assembly, but on which no immediate action was required by the Board, namely: (a) the disposal of abandoned ice boxes and refrigerators; (b) amendments to existing vital statistics laws, and (c) revision in the State's enabling act relative to the rabies program.

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, was present and discussed a petition which would create a sanitary district in McDowell County. He stated that various transactions and documents had been examined by his office, and, in their opinion, were in order. He, therefore, recommended that the Board create the proposed district. Dr. Bender moved that the resolution creating the District to be known as the East Marion Sanitary District, be adopted. Motion was seconded by Dr. Crump and unanimously carried. (Copy of resolution filed in Minute Book)

Mr. Jarrett also discussed an order for Farmville, to install adequate sewage treatment facilities and sewer extensions. He recommended favorable action by the Board on this resolution, stating that all documents and transactions had been examined and found in order by his office. On motion of Dr. Current, seconded by Dr. Henderson, the resolution ordering the Town of Farmville to make necessary sewerage improvements was carried. (Copy of resolution filed in Minute Book)

A resolution ordering the Town of Woodland to install an adequate sewage collecting system and sewage treatment facilities was presented and discussed by Mr. Jarrett. He also recommended favorable action by the Board on this resolution. On motion of Dr. Current, seconded by Dr. Lawrence, the resolution ordering the Town of Woodland to make necessary sewerage improvements, was carried. (Copy of resolution filed in Minute Book)

Mr. Jarrett again discussed the bulk milk dispenser regulations and presented a revision, or insert, to Item 17 of Restaurant Sanitation Regulations as follows:

"*provided further*, that in the case of restaurants and hotels having several banquet halls and dining rooms served from a central kitchen, if careful investigation proves it impractical to locate the milk dispenser in a dining room because of established food checking and serving routines, the milk dispenser may be installed in the food serving area of the kitchen in a location specifically approved by the local health officer and the label information required by this item shall be shown prominently on the menu cards instead of on the milk dispenser cabinet."

On motion of Dr. Current, seconded by Dr. Bender, this amendment was approved.

Secretary Norton discussed possible revision of the law to change the title of Secretary and State Health Officer. It was the consensus that this matter should be discussed with the Attorney General as to how far-reaching this change would be and what effect on regulations and what change it would make in this Board, if any.

The meeting was declared adjourned at 1:10 p.m. to meet at 2:00 p.m. in the Revenue Building to appear at the hearing before the Joint Appropriations Committee.

May 4, 1955. The State Board of Health met in the Dutch Room of the Carolina Hotel in Pinehurst, Wednesday, May 4, at 1:30 p.m., Dr. G. Grady Dixon, the President, presiding.

The meeting was called to order. On motion duly made and seconded, the minutes of the January 25, 1955 Board meeting were approved without being read since members had previously received copies.

The first matter taken up was that concerning pending actions in the field of Sanitary Engineering, with an explanation of each by Mr. J. M. Jarrett, Director of the Sanitary Engineering Division. The first item was a recommendation for the creation of what is known as the Rutherford College Sanitary District. A delegation from the district was present to hear the discussion, if any, pertaining to this matter. After the Board had heard Mr. Jarrett's explanation, Dr. Current moved that the district be created and his motion was seconded by Dr. Haywood. Affirmative action was unanimous. (Copy of resolution filed in Minute Book)

Mr. Jarrett next presented a proposed ordinance which would, in effect, permit fishing in Lake Benson in Raleigh, along with Lakes Raleigh and Johnson, in the City's water supply system. On motion of Dr. Haywood, seconded by Dr. Henderson, this was approved, as requested by the governing body of the City of Raleigh. (Copy of Resolution filed in Minute Book)

Action on a third item, namely, a revision of regulations regarding submission of plans for water and sewerage systems, was deferred until a subsequent meeting, at which time the matter will be explained by Mr. Jarrett, who stated that some of the present regulations are outmoded.

Dr. Norton called the Board's attention to the manner in which money is raised for agencies and suggested that Board members be giving this matter attention and consideration and discussion at a future meeting in regard to such funds. Dr. Norton made particular reference to percentages sent out of the State and amounts spent within North Carolina and by the local communities. Upon motion of Dr. Crump, seconded by Dr. Current, it was agreed that the matter of fund raising and national, state and local sharing be taken up and given thorough consideration at an early meeting of the Board.

Dr. Norton then called attention to the method in which complaints reaching his office are handled. He gave one specific example and informed the Board that every complaint coming to his desk was investigated and that the complainant was given the results of findings. Some complaints,

he said, are justified and some are not, but this, in his opinion, does not relieve his office of its responsibility to look into all matters pertaining to health in North Carolina.

The next item on the agenda involved a report by Dr. Norton on pending State and national legislation affecting Public Health. He called attention to the fact that he shared the view of leading health officials—such as Dr. Hilleboe of New York—that the distribution of the Salk vaccine should be on a voluntary control basis. He said that, in his opinion, controls involving legislation will cause confusion and delay, while he thought that voluntary control would assure better results. He pointed out the fact that, at a Conjoint Session of the Board and the State Medical Society, a few minutes prior to the Board meeting, a resolution favoring voluntary, rather than stringent governmental control, was adopted.

Dr. Norton called the Board's attention to a telephone message, in which Mr. David S. Coltrane had informed him of a proposed change in the \$550,000 School Health Appropriation Bill substituting the word "professional" for "medical and dental." He said that action, in his opinion, would let down the bars for practitioners of various kinds outside the realm of medicine and dentistry. He stated that without the retention of the word "medicine" it would be best to return to the single line item as before. Upon motion of Dr. Current, seconded by Dr. Crump, the Board went on record as insisting upon the retention of the word "medical" in the appropriations measure above referred to.

The next item on the agenda called for discussion with a view to clarifying policies of the North Carolina State Board of Health for the allocation of funds to local health departments. Dr. C. C. Applewhite stated that under the present system it is often impossible to employ competent personnel. He stated that he wished to bring the matter to the Board's attention at this time because local budgets now are being prepared. Dr. Current moved, Dr. Crump seconded, and the Board passed the amendment.

Dr. Lawrence proposed that at a later meeting when the matter could be handled in an unhurried way there should be thought, discussion, and appropriate action on outside influences in the employment of personnel. It was so agreed and Mrs. Kneedler will be asked to be present for that meeting.

Dr. Norton called attention to the fact that his term as State Health Officer and that of Dr. John H. Hamilton, as Assistant State Health Officer, will expire this year, but indicated he did not think the Board had time to go into this matter at this limited session, which had to be concluded at 2:15 p.m. President Dixon stated that the re-election of Dr. Norton and Dr. Hamilton was merely a formality and could be disposed of without loss of time. Dr. Haywood moved the re-election of Dr. Norton and Dr. Hamilton, seconded by Dr. Current. Dr. Dixon made the observation that no motion really was necessary, as the Board was unanimous in this matter. Dr. Norton and Dr. Hamilton were re-elected for four year terms beginning July 1, 1955, by acclamation.

The President is to write a letter to Governor Hodges notifying him officially of the Board's action. (Governor Hodges was officially notified on

May 6 and his letter of confirmation was duly received on May 11, 1955).

**June 30, 1955.** The North Carolina State Board of Health met in regular quarterly session, Thursday, June 30, 1955. The Board went first to the office of Governor Luther H. Hodges, in the Capitol, where at 9:30 a.m., Associate Justice R. Hunt Parker, of the North Carolina Supreme Court, administered the Oaths of Office to the following, for four-year terms, expiring May, 1959:

*Governor Hodges' Appointees:* H. C. Lutz, Ph.G., Hickory — (Re-appointed); John P. Henderson, Jr., M.D., Sneads Ferry — (Re-appointed).

*Elected by the North Carolina Medical Society:* G. Grady Dixon, M.D., Ayden — (Re-elected); G. Curtis Crump, M.D., Asheville — (Re-elected).

Following the exercises in the Governor's Office, the Board went into regular session in the Board Room in the Cooper Memorial Health Building. The meeting was called to order by Vice-President, Dr. Hubert B. Haywood. On motion of Dr. Current, seconded by several members, Dr. Dixon was unanimously re-elected to serve another term as President of the State Board of Health, and he took the chair.

Minutes of the Board meeting held on May 4, 1955, were approved, without being read, as copies had been circulated to each member.

Secretary Norton gave an informative report with regard to national health programs for which there is solicitation in the State in relation to percentage of collections retained and sent out of the State. He pointed out the percentages governing the division of funds raised in campaigns in North Carolina by the twelve State branches of large national health organizations operating in this State such as: the North Carolina Division, American Cancer Society; North Carolina Heart Association; North Carolina Society for Crippled Children and Adults; North Carolina Tuberculosis Association; National Federation for Infantile Paralysis; Muscular Dystrophy Association of America; United Cerebral Palsy Association of North Carolina; National Multiple Sclerosis Society; Arthritis and Rheumatism Foundation; National Association for Mental Health; National Jewish Hospital at Denver; Sister Elizabeth Kenny Foundation. There was no action taken but it was suggested that a copy of this chart be furnished each Board member for study and information. Several expressed an opinion that too large an amount goes to national organizations and very little is retained in the State and particularly locally.

Dr. C. C. Applewhite, Director of the Local Health Division, and Mrs. Mary King Kneeder, Chief, Public Health Nursing Section, were present. Dr. Applewhite made an informative report regarding possible outside influences in the employment of personnel. In the discussion, Dr. Applewhite took the position that since the Board of Health is under the Merit System and State Personnel Department, it has to follow the rules and regulations and policies of these official agencies, and that even good general rules may, in extremely rare cases, become an individual hardship.

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, was present and presented a request for a Sanitary District to be created and to be known as the "Enon Sanitary District" in Burke County. Mr. Jarrett stated that all documents and transactions had been carefully examined

by his Division, and were in order for the creation of the District. At this point, Mr. Jarrett introduced Mr. W. T. Joyner, Jr., Attorney for the Southern Railway, who had requested an opportunity to appear before the Board. Mr. Joyner objected to the Sanitary District including the right-of-way of the Southern Railway. The railroad has no objections to being included in the District, provided its lines were not included simply for tax purposes, he said. After discussion by Mr. Joyner and members of the Board, it was decided that action regarding the formation of the District be deferred until the boundary line could be established. Since it was brought out during the discussion that approximately thirty-three houses outside of the proposed District were to be served by the Sanitary District, the question was raised as to whether or not it might be best to include them within the District at this time.

Mr. Jarrett also presented a request from the Town of Claremont, North Carolina, asking that the State Board of Health issue an Order making it mandatory that the Town install a sewerage system and sewage treatment plant. He stated that all documents had been carefully examined and checked and that proper procedures had been followed in accordance with the requirements of the General Statutes. On motion of Dr. Current, seconded by Mrs. Latta, the Order for the Town of Claremont to install adequate and necessary treatment facilities, was unanimously carried.

Mr. Jarrett then reported informatively on the use of iodophors for the bactericidal treatment of milk and food utensils and equipment. It was brought out that if approval was given, our present sanitary regulations would have to be amended. After much discussion, the approval of the use of iodophors was deferred.

Dr. A. H. Elliot, Director of the Personal Health Division, appeared before the Board, on invitation from Secretary Norton, to explain the result of a conference with regard to re-licensing the Muscular Dystrophy Association of America. The problem involved was one of complaint within the State that local funds appeared not to be readily available for muscular dystrophy patients in localities in which funds had been raised. Dr. Ellen Winston's office desires the support of the State Board of Health in withholding any re-licensing until she has assurance that funds would be dispensed within the State, according to national regulations. No action was taken, as this report was for the Board's information.

Dr. John H. Hamilton, Assistant State Health Officer, and Dr. Fred T. Foard, Director of the Division of Epidemiology, both just back from a conference in Washington, reported on proposed plans for the distribution of Salk polio vaccine, after the contractual obligations of the National Foundation for Infantile Paralysis have been fulfilled. There was a general and informal discussion of various angles of the vaccine situation, but no action was taken.

Secretary Norton reported to the Board on his trip to the Eighth World Health Assembly, in Mexico City, May 10-28, 1955, which he said was most informative and stimulating.

**September 23, 1955.** A meeting of the North Carolina State Board of Health was held at the Robert E. Lee Hotel, Winston-Salem, Friday, Sep-

tember 23, 1955, 2:30-5:00 p.m., at the time and place of meeting of the 44th Annual Session of the North Carolina Public Health Association. Board members and their wives (or husband) were invited guests of the Association at the annual banquet and dance on Friday evening.

The Board meeting was called to order by President Dixon. The minutes of the Board meeting held on June 30, 1955, were approved without being read since all members had previously received a copy.

Secretary Norton made a progress report and presented a chart or table showing the amount of funds raised and available to North Carolina by certain national health organizations soliciting funds in the State. There was much discussion on the subject and it was the consensus that a further study should be made of these funds; that Dr. Norton provide the same information to the Executive Council of the State Medical Society on Sunday, September 25th, and also to secure further information and a breakdown of the use of the funds from the State Welfare Department for overhead, and what percentages are actually used for protective service.

Dr. Eugene A. Gillis, Regional Director, Department of HEW, Public Health Service, Region III, Washington, D. C. was present. He was called on from time to time to give information from the Public Health Service's viewpoint.

Dr. Fred T. Foard, Director of the Division of Epidemiology, was present and presented a progress report relative to poliomyelitis vaccine. He discussed, in detail, information as to the apportionment of vaccine for public health agencies, the administration of the vaccine, etc., and stated that "all local health departments will be required under provision of the Federal law to administer vaccine in clinics free of charge, without a "means test," and no child will be refused vaccine by local health departments." Also, carefully prepared charts, questions and answers giving information and procedures regarding poliomyelitis vaccine had been prepared and was presented to each Board member. There was much discussion of the State plan for distributing and administering the vaccine but no action was taken by the Board for changing the plan as submitted to and approved by the U. S. Public Health Service.

Dr. John H. Hamilton, Assistant State Health Officer, was present and discussed progress made on the recodification of public health laws and regulations of the State Board of Health which are being rewritten and revised to delete obsolete provisions and eliminate confusion. A study of the present laws and regulations was started about six months ago by the Institute of Government at Chapel Hill. Preliminary drafts of the revised code will be prepared and a progress report made to the Board later. After the adopted revisions have been approved by the Board, the recommendations will be presented to the 1957 General Assembly. On motion of Dr. Crump, seconded by Dr. Current, the following terminology was suggested to be used:

- (a) That the term "Board of Health" refer to the membership of the Board.
- (b) That term "Department of Health" or "Health Department" refer to the administrative offices of the Board.

- (c) That the term "Commissioner of Health" or "Health Commissioner" be used instead of the present "Secretary-Treasurer and State Health Officer."
- (d) That the title of Assistant State Health Officer be changed to "Deputy Commissioner of Health" or "Deputy Health Commissioner."
- (e) That the Bureau of Vital Statistics be changed to "Vital Statistics Office."

Motion carried unanimously.

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, discussed further the Enon Sanitary District in Burke County which was before the Board at its meeting on June 30th. In presenting the resolution creating the Enon Sanitary District, Mr. Jarrett explained the corrections which had been made in the boundaries of the district as originally proposed which allowed for the inclusion of additional homes and also reduced somewhat the total area involved, and recommended that the district be created. Dr. Crump moved that the resolution creating the Enon Sanitary District be unanimously carried. (Copy of resolution filed in Minute Book) District in Burke County as revised be adopted. Motion seconded by Mrs.

Mr. Jarrett again discussed the question of acceptance of iodophores as bactericidal agents for use in restaurants and dairies, and after further study, he recommended the approval of the use of iodophores. Dr. Current moved that the State Board of Health accept iodophores as a bactericidal agent. Motion seconded by Dr. Crump, and carried.

Mr. Jarrett also discussed the construction of a raw water reservoir as a standby storage for the Town of Reidsville. He presented a description of the proposed reservoir site and also discussed the problem of stock watering by the property owners. Mr. Jarrett stated that special investigations had been made of this problem and he recommended that the watershed regulations for the protection of filtered surface water supplies be amended to read as follows:

**Section 5 of Watershed Regulations For the Protection of Filtered Surface Water Supplies**—"The habitual watering, washing, or wallowing of any horses, mules, cattle, hogs, sheep, goats or any large animals shall not be permitted in or along the margin of any water supply reservoir, pond or lake; except, in cases where very large volumes of water are involved and the State Board of Health determines, after a thorough investigation, that the quality of the water, in the opinion of the Board, will not be adversely affected so as to render it unsatisfactory for use as a public water supply. The habitual washing or wallowing of any horses, mules, cattle, hogs, sheep, goats or any large animals shall not be permitted on unimpounded streams which are tributary to the public water supply within a distance of 5 miles above the waterworks intake. The above shall not prohibit the watering of domestic animals from tributary streams on farms which may be located on the watershed." On motion of Dr. Current, seconded by Dr. Bender, the above amendment to Section 5 of the watershed regulations for the protection of filtered surface water supplies was unanimously adopted.



Mr. Jarrett then presented and discussed the revised regulations governing the sanitation of restaurants and other foodhandling establishments which had been circulated to the Board members for information and study. He stated that these revisions became necessary because of changes in the hotel and cafe laws made by the 1955 General Assmby. After discussion, on motion of Dr. Current, seconded by Dr. Crump, the revised regulations governing the sanitation of restaurants and other foodhandling establishments, as amended, were adopted unanimously. (Copy filed in Minute Book)

Secretary Norton reported a number of items of interest to the Board members such as the efficiency of self-operated elevators which are now being used in the building and of the damage which has been done to the building by the hurricanes. Air conditioning of the building was also discussed, and on motion of Dr. Crump, seconded by Dr. Henderson, it was suggested that a letter be written to Mr. George B. Cherry, Superintendent of Buildings and Grounds, urging that air conditioning be installed just as soon as practical. Motion unanimously carried.

Also, in making his report, Dr. Norton told the Board about losing key employees, secretaries and clerks due to inability or delay in actions by the State Personnel Department. After discussion, it was the consensus that Secretary Norton draft a letter to the Governor for signature by Dr. Dixon, as President of the Board, apprising him of the situation that has come up in being unable to employ or reclassify qualified personnel because of obstruction by the State Personnel Department.

**January 12, 1956.** A regular quarterly meeting of the North Carolina State Board of Health was held on Thursday, January 12, 1956, 10:00—12:00 noon and 1:00 p.m.—3:30 p.m., in the Board Room, Cooper Memorial Health Building, with President G. Grady Dixon, presiding.

Dr. Crump and Dr. Henderson notified Dr. Norton by telegrams that it would be impossible for them to be present.

The meeting was called to order by the President, Dr. Dixon.

On Motion of Dr. Current, seconded by Dr. Haywood, the minutes of the meeting held on September 23, 1955, were approved without being read since all members had previously received a copy.

Dr. Norton reported on the Cornell Crash Injury study. He said the study has progressed to the point that the Ford and Chrysler motor companies have given \$200,000 each for its continuation which is under the general supervision of Cornell University. The approval of the Executive Council of the Medical Society of the State of North Carolina has been given for its continuation for the next two years. The principal results of the study have been improvement in the type of steering wheel, so that the steering post does not crash into the chest; locking doors so that the doors will not fly open; padding for the instrument panel and visors, and shatter-proof rear view mirrors. The material in the padding is a material that absorbs shock about five times as well as foam rubber. North Carolina was the pioneer State, and has been given recognition in the reports on the study. A representative from Cornell, at a meeting with

Dr. Norton, agreed to provide reimbursement for one additional person (clerk) in Vital Statistics and postage and materials of about \$500.00. Dr. Norton recommended that Board approval be given to continuing the study for two years. Dr. Lawrence moved, seconded by Mr. Lutz, that the Board approve continuation of the Cornell Crash Injury study for a period of two years. Passage was unanimous.

Mrs. Isabelle R. Henderson, Chief of the Personnel Section, made a report on the major personnel problems of the State Board of Health, including those not solved satisfactorily by the State Personnel Department, dating back to June, 1952; appeals to the State Personnel Council; separations for better pay with other governmental agencies, and vacant positions to be filled in the State Board of Health as of January 12, 1956. Mrs. Henderson answered several questions asked by members of the Board.

Dr. Dixon recognized Dr. James P. Rousseau of Winston-Salem, President, and Mr. James T. Barnes, Executive Secretary of the State Medical Society, inviting them to join in any of the discussions.

Dr. Fred T. Foard, Director of the Division of Epidemiology, made a report on the distribution of the Salk polio vaccine and gave each Board member copies of recent correspondence. There are 160,251 ccs. of vaccine in the 70% allocation on hand at the manufacturers, which have not been distributed Dr. Foard said. The larger health departments do not have enough to inaugurate mass programs and are, therefore, giving it only at health centers. Dr. Foard has asked every county not putting on a mass program to make available any vaccine they cannot use, to other counties. This is being done, he reported, and the demand is greater than the supply in the 30% allocation. There are 900,000 children in the State eligible for the vaccine and only 490,287 ccs. have been released, according to information in hand. Three doses are necessary for each child. 187,125 ccs. have been reported as sold to private physicians.

Dr. Rousseau said he felt that there is a great lack of demand for vaccine, due to absence of proper educational programs to the public; and the unused vaccine in private channels, he feels, would be used, if an educational program were promoted. Such a program has been started and is on the radio and television, telling the people what the health officers and medical profession feel about the value of vaccine and why they should have their children immunized now before polio season comes. This should increase the demand for vaccine. "If the health departments run a shortage, I think the Medical Society is perfectly willing for them to buy the extra amount that they need. My personal feeling is that the vaccine should be distributed over the State as originally outlined—30-70 percent—but exceptions should be made," Dr. Rousseau said. A re-educational program is needed, because the first great enthusiasm was killed.

Dr. Norton stated that the State Board of Health has no authority from either the Board or from the Governor's Advisory Committee to purchase vaccine released through commercial channels at this time.

Dr. Foard suggested that the ratio be changed to 50-50.

Dr. Current made the point that any citizen in North Carolina can go to the Public Health Department for any kind of immunization, if he so

desires, and we should work as rapidly as we can toward bringing polio vaccine into the same category as other immunizing agents.

Dr. Dixon recommended that Dr. Foard's office get out a letter to every physician in the State, stating that the use of polio vaccine is approved by the State Board of Health to be administered to any and all children or people; that the State Board of Health advocates, recommends, or suggests that they get those in their practice immunized before May; that the vaccine is available to them through commercial houses. A letter like that might make some of the doctors begin to think, Dr. Dixon said. Another suggestion was that the State Board of Health buy an extra ten or twenty percent at the present time, in order to get it to the other people, with the approval of the Governor's Advisory Committee.

Dr. Foard proposed that the State Board of Health buy all the available vaccine and furnish it, free, through local health departments, to all physicians requesting it, with the understanding that they make no charge for that vaccine but any charge deemed proper for administering it. Dr. Rousseau said he thought the medical profession would object to Dr. Foard's proposal that vaccine be provided free.

Dr. Bender moved, "that the State Board of Health go on record as recommending to the North Carolina Advisory Committee on Poliomyelitis Vaccine that the backlog of 160,251 ccs. of vaccine which is part of the 70% allocation to commercial channels for this State and now in the hands of the manufacturers and not being called for by wholesale druggists or private physicians in the State, be made available for purchase by the State Board of Health for distribution to local health departments." Dr. Lawrence amended this motion and it was accepted by Dr. Bender,—“provided, that such parts of this vaccine as requested and needed by private physicians for their own private patients, be made available to them at no cost for the vaccine as long as it is available.” Motion seconded by Mrs. Latta as amended, and carried without dissent.

Dr. Rousseau said that he did not think the medical profession could object to free vaccine, if they were at liberty to make a charge for administration.

Dr. Haywood stated that as he has been on the Board 23 years, is in bad health and has been retired from active practice for two years, it was his intention to offer his resignation to the Governor. He submitted a list of suggestions which, he said, might simplify and enhance the Board's efficient deliberations. (Recommendations filed in Minute Book)

Dr. Lawrence expressed the hope that Dr. Haywood would delay his resignation for a little while, till the completion of his present term (May, 1957) if not a hazard to his health. Dr. Dixon said it was his opinion Dr. Haywood has done as much as, or more than, any other member of the Board of Health, or any member of the State Medical Society to promote the public and general health and welfare, or any other man in the whole State of North Carolina.

Mr. Jarrett suggested and recommended a substitute resolution, repealing the resolution adopted at the last meeting, with reference to the Enon Sanitary District. Mr. Byrd, a lawyer representing the district, was pre-

sent, and explained the legal technicality which made it necessary to change the sanitary district. Discussion was postponed until the afternoon session, and the meeting was adjourned for lunch at 12:30 p.m.

The afternoon session was called to order at 1:30 p.m. The first item brought before the Board was the suggested change in the fluoridation policy. Mr. Jarrett requested that Section IV, paragraph 7, of the fluoridation policy be amended by changing the word "shall" in the second line to "should" and adding the following sentence at the end of the paragraph: "Where tinted or colored fluoride chemicals are not available, white fluoride may be used, provided every necessary precaution is taken to insure its proper handling and use." This would make the paragraph read as follows:

"The fluoride chemical shall be plainly labeled and, if in dry form, should be colored by means of a dye in order that it may be readily distinguished from other chemicals used in water treatment processes. The dye used for this purpose when applied to the water so as to add 1.5 p.p.m. of fluoride (F), shall not in any way be toxic or detrimental to health and shall not in any way effect the quality of the water in respect to the U. S. Public Health Service Standards. The kind of coloring material used for coloring the fluoride shall be identified by the manufacturer in his proposal. Where tinted or colored fluoride chemicals are not available, white fluoride may be used, provided every necessary precaution is taken to insure its proper handling and use."

Dr. Bender moved that the policy be changed according to Mr. Jarrett's recommendation. Mr. Lutz seconded the motion and it carried without objection.

Dr. Lawrence moved that Mr. Jarrett's recommendation with regard to the Enon Sanitary District be accepted. Dr. Current seconded the motion and it was carried unanimously. (Resolution filed in Minute Book)

Mr. Charles Council presented a proposed revision of delayed certificate of birth and instructions and application for filing the certificate. Mr. Lutz moved that the revision be adopted. Mrs. Latta seconded the motion and it was carried unanimously. (Copy filed in Minute Book)

Dr. Applewhite gave a report on the mental health program, and Mr. Haswell described the operation of a mental health clinic (the Raleigh Clinic).

The first draft of the recodification of public health laws had been mailed to the Board members before this meeting. Dr. Norton announced that a meeting of the committee which worked this out would be held on January 18. He requested that either the Board plan to get together with this committee, or that the President appoint a committee to meet with this group. If it is not convenient for the entire Board or a committee to meet on that date, the date of the meeting could be changed. Dr. Bender suggested a committee be appointed.

At this time Dr. Lawrence requested the Board to go into executive session.

Dr. Dixon appointed Dr. Lawrence to serve with him as a committee to meet with the committee on January 18.

Dr. Current suggested that a copy of Dr. Haywood's recommendations be sent to the Board members.

Dr. Elliot presented two problems with regard to consultants in the crippled children's program. After some discussion, Dr. Dixon suggested that Elliot bring a report to the next meeting of what has been done, with his recommendations of what should be done.

The next meeting was set for 10:00 a.m., Thursday, February 23, and other items on the agenda were postponed until that date.

**February 23, 1956.** The North Carolina State Board of Health met in a called session, Thursday, February 23, 1956. The members assembled in the office of Governor Luther H. Hodges, in the Capitol, where, at 9:30 a.m., Associate Justice Jeff D. Johnson, Jr., of the North Carolina Supreme Court, administered the Oath of Office to Dr. Lenox D. Baker, Durham, N. C., to fill the unexpired term of Dr. Hubert B. Haywood, who wrote a letter of resignation to the Governor dated January 16, 1956.

Following the exercises in the Governor's Office, the Board went into session in the Board Room of the Cooper Memorial Health Building. The meeting was called to order by the President, Dr. G. Grady Dixon.

Minutes of the Board meeting held on January 12, 1956, were approved as circulated.

Dr. Crump nominated Dr. Lawrence to fill Dr. Haywood's unexpired term as Vice-President. Mr. Lutz seconded the motion, after which Dr. Bender moved that the nominations be closed, seconded by Dr. Baker. The vote was unanimous.

Dr. Lawrence moved that Dr. Bender be elected as the third member of the Executive Committee to succeed Dr. Haywood in that capacity. Dr. Crump seconded the motion which carried unanimously.

Dr. Lawrence moved a vote of thanks and welcome to the newest member, Dr. Baker. This was seconded by Dr. Crump and carried unanimously.

Dr. Dixon read a message from Dr. Haywood, also a telegram from Dr. Henderson notifying the Board that they could not be at the meeting.

Dr. Hugh A. Thompson of Raleigh and Dr. Oscar L. Miller of Charlotte, invited guests, were recognized and asked to enter into the discussion, to make any remarks and give any advice on the Crippled Children's Program, which was subsequently taken up for review.

Mr. Jarrett presented the revised restaurant score sheet, copies of which had been mailed to each member of the Board. Dr. Crump moved that the Board approve the revised score sheet, and Dr. Current seconded the motion. Dr. Baker abstained because he was not familiar with the subject. (Copy filed in Minute Book)

Mr. Jarrett explained a proposed order by the State Board of Health making it mandatory for the Town of Louisburg to install an adequate sewage disposal plant. Dr. Lawrence moved that the order be approved. Mrs. Latta seconded it and the motion was unanimously carried. (Copy filed in Minute Book)

Mr. Jarrett presented a petition from the Dare Beaches Sanitary District to extend its boundaries. Dr. Crump moved that the annexation

be approved which was seconded by Mr. Lutz and unanimously carried. (Copy filed in Minute Book)

Mr. Jarrett gave an explanatory report on a lawsuit that has been entered in Wake County Superior Court against the State and the State Board of Health by Mr. Wallace, a part-owner of the Howard Johnson Restaurant of Rockingham, alleging that the system of grading restaurants and requiring the posting of grades A, B, or C, is unconstitutional.

Dr. Donald B. Koonce of Wilmington, President-Elect of the State Medical Society, who was present, was welcomed and invited to enter into any discussions he cared to.

Dr. Hamilton made a progress report on Postmortem Medicolegal Examinations. There are two committees functioning, a committee of the State Medical Society and a Postmortem Medicolegal Examinations Committee set up by the 1955 Legislature. Dr. Hamilton said he felt that the local health officer should not be considered for the job of Postmortem Medicolegal Examiner.

Dr. Koonce was asked whether he thought the Examiner should be the health officer. He said he was not familiar with the law that was passed. It was his understanding of the original Bill that there would be district pathologists, and, in each county, there would be a medical examiner. He thought that the medical examiner certainly should not be the health officer but, from a practical point of view, it is extremely difficult to get a private practitioner to take that job, he said. In some poorer counties it would be cheaper to use the health officer, he added.

Dr. Baker thought this law should have some kind of provision where the county health officer could serve in that capacity, if the county commissioners could not get someone else, and that a loophole should be left for that purpose.

Dr. Norton expressed the thought that the Laboratory Division might be the logical place to center any special responsibility from the standpoint of administration of work with the Postmortem Medicolegal Examinations Committee and made that recommendation. It was agreed without formal vote that this should be done.

Dr. Foard made a progress report on the polio vaccine program, as summarized up to the present time in material distributed to the members.

Further discussion of the Crippled Children's Program, continued from the last meeting, was brought up and Dr. Elliot explained how physicians get on the roster as participating specialists in the Crippled Children's Program. He was asked at the last meeting to bring before the group policies, plans, etc., and in the interest of giving everybody an opportunity to study all this material at home before the meeting, he prepared and mailed all of the important procedures, rules and regulations to each member of the Board.

Dr. Lawrence expressed the hope that the Board could see fit to assure that the number of participating specialists would be greatly increased. He did not think that it should restrict the handling of these children to the approximately 100 specialists to the exclusion of anyone else equally well qualified.

Dr. Baker remarked that he thought Dr. Elliot and Dr. Lawrence were both right. Dr. Coppridge and his two associates are working in a hospital that meets all qualifications of the Board, he said. He thought that the vote of the Credentials Committee could be rescinded to take in these men at both Watts and Lincoln Hospitals, in order to take care of the children. Dr. Warner Wells (general surgeon) is not qualified for the job for which he was applying, (that of plastic surgery) in his opinion.

Dr. Miller, who served on the Board in Washington twelve years, in the beginning of Social Security, made the point that, above all things, the children should be cared for. He hoped these minor problems could be ironed out within the confines of the organization which has operated Crippled Children's work for so long.

Dr. Thompson agreed with Dr. Miller, and added that, in handling a program of this nature, it is necessary for the patients to be properly taken care of by people who are fully qualified specialists, but if all are placed on the roster who request it, it cannot be easily handled, from an administrative standpoint.

Dr. Dixon made the point that the more people there are in this work, the more there are who are supporting Public Health work. Dr. Lawrence asked why so much of the orthopedic work has been sent to one hospital. Dr. Elliot explained that the patient is treated by the orthopedist who diagnoses his condition in the clinic. Nine out of ten attend one of the Crippled Children's clinics throughout the State and they are hospitalized where the orthopedist works. Orthopedists are assigned to clinics with the recommendation of the local medical Society's Credentials Committee and final approval by the State Board of Health. The hospital where the patient is treated is usually determined by what orthopedist sees him in the field.

Dr. Dixon thought the Board should know the action of the Specialty definite program for adoption, setting forth, how it shall be done and what shall be done; not too long, but something that can be understood and to the best advantage of the money that goes into it, the best advantage of the children, and the best advantage of those who are providing the service.

Dr. Lawrence suggested that the President of the Board, together with the Executive Committee and any other members of the Board that he saw fit, have a meeting with the Executive Officer, Dr. Norton, and Dr. Elliot, at which time they would attempt to work out a written policy.

Dr. Dixon thought the Board should know the action of the Specialty Screening Subcommittees and Advisory Committee, and if the Board should have responsibility for the action of the Advisory Committee, it should be responsible for determining members of the Committee.

Dr. Norton asked if the Board wanted to pass on the members of the Advisory Committee; if it wanted to pass on the roster of participating specialists as they are screened through Specialty Subcommittees and then approved or not by the Advisory Committee.

Dr. Lawrence said the specialists who are on this roster should have Screening Subcommittees and Advisory Committee approval, and also that men declined admission to the roster should be permitted to appeal to the Board. No objection was expressed to this statement.

Dr. Kendall explained how the question of participating consultants came up.

It was agreed that if any action should be taken before the next meeting of the Board, there should be consultation with the Executive Committee.

As to representation on the North Carolina Health Council, to replace Dr. Haywood, as associate member, Dr. Dixon asked Dr. Lawrence to serve. Dr. Lawrence asked that he be excused and suggested Dr. Crump. Dr. Crump moved that Dr. Dixon be designated. The motion was seconded by Mr. Lutz. Dr. Dixon voted "no," but the motion was carried. Dr. Dixon returned to the Chair, having left it while the motion relative to him was pending.

The recommendations and motions Dr. Haywood presented to the Board in a written statement at the last meeting were taken up individually, as follows:

"I move that the Executive Committee of the State Board of Health meet once a month." Dr. Crump seconded the motion. Dr. Baker asked for an amendment to the motion, "meet four times a year, spaced between and in addition to regular Board meetings." This amendment was accepted by Dr. Crump and Dr. Lawrence seconded the amendment. If there is a called meeting of the Board, it will serve as a regular meeting of the Executive Committee. Unanimous.

"I move that the members of the Executive Committee serve staggered terms of three years each and that an interim of at least two years shall intervene before they are re-elected to the Executive Committee." No second.

"I move that the Chairman of the Board of the State Board of Health shall serve not over six years consecutively and that a three year period shall intervene before he may be re-elected Chairman." No second.

"I move that this shall also apply to the Vice-Chairman." No second.

"I move that a Finance Committee be elected by the Board from their members by the Board, to serve as the other Boards will do for three year periods, on a staggered basis." No second.

"I move that a Grievance Committee be elected by the Board from its members to hear any complaints from employees about promotions and salary raises." No second.

"I move that committees be appointed to confer with and familiarize themselves with the various departments (divisions) of the State Board of Health." Dr. Current suggested one Board meeting be devoted to hearing division reports. Dr. Bender moved that there be a liaison officer from the Board to represent each division of the State Board of Health, seconded by Dr. Current. Each member present was given opportunity to express a preference and Dr. Dixon filled in the remainder as follows:



- |                                  |                            |
|----------------------------------|----------------------------|
| Central Administration           | Mrs. J. E. Latta           |
| 1. Personal Health Division      | Dr. Lenox D. Baker         |
| 2. Epidemiology Division         | Dr. John P. Henderson, Jr. |
| 3. Sanitary Engineering Division | Mr. H. C. Lutz             |
| 4. Oral Hygiene Division         | Dr. A. C. Current          |
| 5. Local Health Division         | Dr. John R. Bender         |
| 6. Laboratory Division           | Dr. G. Curtis Crump,       |

leaving the Board President and Vice-President without specific liaison assignments. It was discussed that these liaison assignments to divisions should be rotated at about yearly intervals in order that all Board members could become familiar with the entire program.

"I move that at least one meeting of our Scheduled four meetings relationship to the State Board of Health's programs." No second.

"I move that a committee be appointed on Social Legislation and its be devoted to a large extent in getting reports from these committees." No second, but with comment that liaison responsibilities assigned above should assure adequate reporting to the full Board.

Dr. Bender moved that the two motions that were revised and amended be accepted by the Board. Dr. Lawrence seconded the motion and it was unanimously carried.

Dr. Dixon expressed the hope that the Board would pass a similar resolution for Dr. Haywood as for Dr. Johnson, ten or twelve years ago, printed on a parchment scroll. Dr. Lawrence moved that a suitable resolution of respect and appreciation and gratitude to Dr. Haywood for the services rendered this Board be prepared and signed by each member of the Board, and that the Board as a whole, or committee designated, present it to him, preferably, if he is able to be there and his health will permit, at the next Conjoint Session of this Board and the State Medical Society. Seconded by Dr. Current, and unanimously carried.

Dr. Dixon asked every member of the Board to go over the second draft of the proposed recodification, make notations of the changes that have been made that they do not agree with, or changes that they think should be made, and after they have gone through this, then reduce that to a letter or statement, chapter by chapter, and if there is any member of the Board that does not want to make any suggested changes, so write the State Health Officer. When all members of the Board have been heard from,—that a special meeting be called to go over that for its last approval or disapproval. Dr. Lawrence made such a motion. Seconded by Dr. Bender and unanimously carried.

April 19, 1956. On Thursday, April 19, 1956, the Executive Committee of the State Board of Health composed of Dr. G. Grady Dixon, Dr. Ben J. Lawrence and Dr. John R. Bender, met. Dr. Dixon called the meeting to order.

Mr. John Andrews presented a proposed revision in the bulk milk dispenser requirements of the restaurant regulations. Item 17 of the restaurant regulations (page 27) allows the use of bulk milk dispensers. The milk regulations adopted by the Richmond County Board of Health do not allow the use of bulk milk dispensers in Richmond County. Possible con-

flicting interpretations can be eliminated by changing the State Board of Health restaurant regulations to allow bulk milk dispensers "where permitted under the regulations of the local Board of Health." If the State Board of Health should decide to make this change, the clause quoted could be inserted on line 8 of Item 17 (page 27), between the words "that" and "sanitary." With this change, the third sentence of Item 17 would read as follows (addition underlined):

"Milk and milk products shall be served in the individual, original containers in which they were received from the distributor, so that the name and grade of the contents and the name of the milk distributor may be observed readily by the consumers; provided that, *where permitted under the regulations of the local Board of Health*, sanitary bulk milk dispensers which have been approved by the State Board of Health may be used if so located and so labeled that the name and grade of the contents and the name of the milk distributor may be observed readily by the consumers; provided further, that in the case of restaurants and hotels having several banquet halls and dining rooms served from a central kitchen, if careful investigation proves it impractical to locate the milk dispenser in a dining room because of established food checking and serving routines, the milk dispenser may be installed in the food serving area of the kitchen in a location specifically approved by the health officer and the label information required by this item shall be shown prominently on the menu cards instead of on the milk dispenser cabinet."

Dr. Lawrence moved that the revision be adopted. Dr. Bender seconded.

At Dr. Norton's request, Mr. Andrews reported on how the Howard Johnson litigation was settled. He also commented that relations with Howard Johnson Restaurants is, in general, good.

Dr. Foard gave a brief report on the distribution of polio vaccine with a total allocation to date for North Carolina of about 940,000 ccs. from Federal funds.

Dr. Norton read a letter from Dr. LeRoy Hand, Jr., Gatesville, which had been published in the News and Observer. He reported that he had written Wyeth and Lilly for comments on Dr. Hand's letter.

Dr. Norton asked Dr. Foard to give a brief report on Cabarrus County. A little more than 80 per cent of the children under 20 in Cabarrus County have been given two doses of polio vaccine, and the County Medical Society has requested enough vaccine to make a hundred per cent. The Public Health Service plans to use Cabarrus County in a study on the effects of administration of polio vaccine. Practically all of the vaccinations were done by the health department—the Medical Society advocated that people go to the health department.

Dr. Norton reported that he and Dr. Rousseau both feel that the usefulness and necessity for the Polio Advisory Committee has just about ended, from the standpoint of having anything other than the State Board of Health pick up and carry on from there. Dr. Rousseau is in complete agreement and actually recommends that we go ahead and make a report to the Governor on the progress of the vaccination against polio. He suggested that Dr. Norton gather up the information, summarize it and take it over to the Governor and suggest to him that he terminate the Advisory Committee and designate the State Board of Health to follow-up with

that. Dr. Bender commented that the State Board of Health might be glad to have this committee if a lot of polio breaks out this summer and other Executive Committee members seemed inclined to agree with him.

Dr. Dixon introduced Dr. Ellen Winston and Dr. John Ferrell, who had joined the group to present the proposal of the State Health Council for first aid service for State employees. Dr. Winston gave the background and described the proposed plan worked out by a committee of the State Health Council for a preventive health service for State employees for the purpose of reducing absenteeism, reducing labor turnover, improving employees' morale and greater working effectiveness. It was suggested that one station, under the supervision of the State Board of Health, be staffed with one nurse, on a pilot basis, for State employees in Raleigh only. Dr. Ferrell described the State program in Connecticut, the only state which has such a program, and also commented briefly on the emergency service in Washington which was developed and supervised by the U. S. Public Health Service for Federal employees.

After much discussion, Dr. Lawrence suggested that the matter be taken under advisement and referred to the full Board.

Dr. Foard reported to the Committee that he and Dr. Norton just found out about an industry tax collected for industrial health purposes of about \$150,000 per annum which has been going into the State General Fund. He also mentioned the fact that because of the low salaries paid by the State, the Industrial Hygiene Section has been without an engineer since the death of Steve Marsh last July. Dr. Dixon suggested that we find out several things; first, when that tax was levied, how long it has been collected, and why it was collected and how much is collected annually, if it was levied for the purposes of industrial health, who has that money been assigned to?

Dr. Foard called attention to the growing hazard of the use of atomic energy in industrial plants, and the need for more personnel in the Industrial Hygiene Section. Dr. Foard recommended that the State Board of Health take under consideration a resolution that would recommend adequate support from an industrial hygiene appropriation standpoint. Dr. Dixon requested a report on answers to the above questions to the next meeting of the Board on May 2nd.

Adjourned for lunch.

The next item taken up by the Committee was discussion of the Haywood scroll. It was left up to Dr. Hamilton to have the scroll made up and to have it at the Conjoint Session at Pinehurst for presentation. Dr. Dixon took personal responsibility for the members of the Board taking care of the cost, which will be about \$100.00.

Mr. Roddey Ligon, of the Institute of Government, Chapel Hill, made a progress report on bringing health regulations up-to-date. He said that suggested changes in Chapter 130 will be in Dr. Norton's hands in a few days. Other areas outside of Chapter 130 will be taken up with the State Department of Agriculture and any other departments involved before any changes can be made. Dr. Dixon told him that a committee of the

Board will have a meeting on April 29 and may have some suggested changes to turn in to him.

Dr. Applewhite presented proposed changes in board policies on allocation of funds to local health departments, with reference to oral hygiene programs in the local departments. Miss Deynolds presented the budget programs in the local departments. Miss Reynolds presented the budget. Dr. Applewhite and Dr. Branch to work out and bring up at the next meeting.

Dr. Elliot asked for approval of the Board for the way the Crippled Children's program has been operated up to now, with the understanding also that the Board will in the future, determine any new policies, changes in policy, selections of clinic directors, additions to the participating roster and to the Advisory Committee and Credentials Committees. He also requested approval of the two recommended for addition to the roster. (Dr. Louis Carroll Roberts and Dr. Jack Hughes of Durham).

Dr. Norton was requested to prepare a resolution to the whole Board that this committee be set up as the formal advisory committee, that they be commissioned by the Board of Health and that they be commissioned for two and four years, alternately and alphabetically on the list.

Formal action on the Credentials Committees was postponed. With reference to the two urologists to be admitted to the roster, Dr. Roberts and Dr. Hughes of Durham, Dr. Lawrence moved that approval be recommended and Dr. Bender seconded the motion.

May 2, 1956. The annual meeting of the North Carolina State Board of Health was held at the Carolina Hotel, Pinehurst, North Carolina, May 2, 1956, with President Dixon presiding.

The meeting was called to order by the President. Minutes of the Board meeting held on February 23, 1956 were approved with an amendment suggested by Dr. Lenox Baker relative to "Liaison assignments" to divisions. This correction has been made.

Dr. Baker moved that the minutes of the Executive Committee meeting held on April 19, 1956, be held in abeyance until a future meeting. Motion seconded by Dr. Current, and carried.

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, was present and presented a proposed resolution regarding bulk milk dispensers. Mr. Jarrett discussed the subject in detail and said there was a possibility of a conflict between the regulations of the State Board of Health and the milk regulations of local Boards of Health. The possibility of such a conflict could be prevented by changing the State Board of Health regulations governing the sanitation of restaurants, private hospitals, sanatoriums, sanitariums, educational institutions, and summer camps so as to permit the use of bulk milk dispensers "where permitted under the regulations of the local Board of Health." Upon motion of Dr. Current, seconded by Dr. Baker, the following resolution was unanimously adopted:—

"Be it resolved that the rules and regulations governing the sanitation of restaurants, as adopted by the State Board of Health at Winston-Salem, North Carolina, on September 23, 1955 be amended as follows:

"In Section 6, Item 17, third sentence, after the words 'provided that,' insert

the words, 'where permitted under the regulations of the local Board of Health';

"Be it further resolved that the rules and regulations governing the sanitation of private hospitals, sanatoriums, anitariums and educational institutions, as adopted by the State Board of Health at Raleigh, North Carolina on August 7, 1946 and revised at Raleigh, North Carolina on July 1, 1954, be amended as follows:

"In Section 6, Item 16 (as revised), seventh sentence, after the words 'provided that,' insert the words, 'where permitted under the regulations of the local Board of Health';

"Be it further resolved that the rules and regulations governing the sanitation of summer camps, as adopted by the State Board of Health at Virginia Beach, Virginia on May 14, 1947, and revised at Raleigh, North Carolina on July 1, 1954, be amended as follows:

"In Section 7, Item 10 (as revised), seventh sentence, after the words 'provided that,' insert the words, 'where permitted under the regulations of the local Board of Health.'

In Dr. Fred T. Foard's absence, who was in Washington, D. C. attending a conference on poliomyelitis vaccine called by Surgeon General Scheele, representing the North Carolina State Board of Health, Secretary Norton made a progress report on polio vaccine. He stated that the Board had just received a wire announcing the largest shipment of vaccine yet (96,000 ccs.) and that it was understood that there was an increasing amount of vaccine in the assembly lines which takes about four months to complete and that it is expected that soon the vaccine will be coming in in increased amounts. Dr. Norton also discussed a report on poliomyelitis vaccine which had been circulated to all Board members regarding the vaccine distribution to be discussed at a meeting to be held Sunday, May 6, with the North Carolina State Advisory Committee on Poliomyelitis Vaccine and as Chairman of that Committee invited Board members to attend. Dr. Dixon stated he would try to attend.

At the request of Dr. Norton, Mr. William H. Richardson, Publicity Officer, reported the results of an investigation concerning monies paid into the Industrial Commission by self-insurers. There had been some misunderstanding as to whether these monies, which are deposited in the General Fund, could be retrieved and used by the State Board of Health or the Industrial Commission. It was learned that this fund, amounting to an average of around \$130,000 a year, is collected for purposes other than services provided by the State Board of Health.

Dr. C. C. Applewhite, Director of the Division of Local Health, presented the proposed policies of the North Carolina State Board of Health for allocation of State aid funds to local health departments. The policies were explained very carefully by Dr. Applewhite and discussed. Upon motion of Dr. Lawrence, seconded by Dr. Current, the new "Policies of the North Carolina State Board of Health for Allocation of State Aid Funds to Local Health Departments" were unanimously passed. (Copy of policies filed in Minute Book)

Dr. Applewhite also presented proposed policies of State and Federal Funds for the Mental Health program. After due explanation, and discussion, Dr. Lawrence moved, and seconded by Dr. Current, that the Board postpone definite action on Mental Health policies until a subsequent date

but authorized the State Board of Health to proceed as usual with the allocation in accordance with previously used methods.

Mr. Jarrett presented a request for the creation of a sanitary district at Havelock, Craven County, North Carolina. He stated that all documents and transactions had been examined by his office and were in his opinion, in order, and in compliance with the law, and he recommended that the State Board of Health act favorably on the creation of this Sanitary District. The matter was discussed and upon motion of Dr. Current, seconded by Dr. Henderson, the "Resolution of the North Carolina State Board of Health creating the Havelock Sanitary District in Craven County" was unanimously passed.

Mr. Jarrett also presented a request for the extension of the boundaries of the Walkertown Sanitary District in Forsyth County. He stated that the documents, as well as the various transactions relative to this matter had been examined by his office and were in order, and because of the need for sanitary improvements in the proposed area to be annexed, he recommended favorable action by the Board. On motion of Dr. Baker, seconded by Dr. Lawrence, the "Resolution extending the boundaries of the Walkertown Sanitary District in Forsyth County, North Carolina," was passed unanimously. (Copy of resolution filed in Minute Book)

Then, Mr. Jarrett presented a request from the Town of Mebane, North Carolina, to allow controlled fishing in the municipal water supply lake. He stated that due to strict regulations controlling fishing activities that he felt that no unfavorable effects would be experienced in the quality of the water and that it would be safe from a public health standpoint. On motion of Dr. Baker, seconded by Dr. Current, the "Resolution of the North Carolina State Board of Health authorizing the Town of Mebane, North Carolina to permit fishing in Lake Michael Municipal Water Supply Lake," was passed unanimously.

Dr. Dixon announced the meeting of the North Carolina Public Health Association to be held in Charlotte, North Carolina, May 31-June 1, 1956. The question as to whether or not a Board meeting should be held during the meeting was discussed, etc. Dr. Bender moved, and it was seconded by Dr. Henderson, that if there is enough Board business, that the Board hold a regular meeting at 2:00 p.m. on Friday, June 1 at the same time and place of the NCPHA meeting at Hotel Charlotte. Motion carried.

Secretary Norton discussed the letter he had sent to Mr. George B. Cherry, Superintendent of Buildings and Grounds, requesting consideration of air-conditioning of the Health Building and that if the entire building could not be air-conditioned, special consideration was requested for the first three floors of the building. The Board approved of the Secretary's request for air-conditioning, and asked that Mr. Cherry be informed that the Board officially and respectfully requests that the entire building be air-conditioned as soon as possible.

Dr. B. M. Drake, Co-Director of the School Health Coordinating Unit, which is a coordinated service jointly of the Education Department and the State Board of Health, gave a brief summary of the School Health Program. He discussed the functioning of the service for the last two

years and brought the Board up-to-date as to the restrictions placed on the use of school health funds by the last Legislature. Dr. Drake also circulated to the members other pertinent data: policy governing the expenditure of State Board of Education Child Health funds, a schedule of dental fees and a copy of a memorandum to Dr. Norton concerning the formation of a joint school health committee. After a discussion, it was suggested that Dr. Drake and Mr. Charles E. Spencer, who is also Co-Director, draw up resolutions relative to the joint Committee that they would be willing to have presented to both departments (State and Education Boards) at the next meeting of the Board.

At this point, Dr. Crump moved and Dr. Baker seconded that the Board declare itself in Executive Session. Motion carried.

Mr. James T. Barnes, Chairman of a Committee of the N. C. Health Council, was invited to the meeting. He explained the establishment of a first aid station for State employees—the Health Council having adopted this one project for the year; that the purpose was not treatment of ailments except basic first aid. The three functions of the station would be: screening, providing aid for minor ailments in order that an employee might stay on the job, and prevention through education. (A description of Preventive Health Service for State Employees as prepared by Mr. Barnes had previously been mailed to each member). Dr. Baker moved that the State Board of Health, as of now, go on record as disapproving the health service as outlined by the Committee for State employees. Motion seconded by Dr. Bender, and passed unanimously.

There was only a brief discussion of the progress on recodification of health laws and regulations. It was moved by Dr. Crump, and seconded by Dr. Lawrence, that the President of the Board of Health appoint a committee from the Board to make an official draft of the recodification of the public health laws of North Carolina. Motion carried. Dr. Crump was appointed Chairman of this group with power to select other members from the Board, and to get together at any time to study in particular the sections on oral hygiene, pharmacy, medical laws and regulations, sanitation, dairying, etc.

On motion duly made and seconded, the meeting adjourned for the Con-joint Session of the Medical Society of the State of North Carolina and the State Board of Health as required by law on the second day of the annual meeting of the Medical Society. President Dixon presided at this meeting. After the recognition of the new member, Dr. Lenox D. Baker, the Secretary, presented his annual report. President Dixon then called Dr. Ernest A. Branch to the platform and praised his leadership, internationally recognized, in Oral Hygiene work which has reflected credit on the Board, the State and on Dr. Branch and the entire dental profession.

President Dixon then called Dr. Hubert Haywood to the platform and presented to him a scroll prepared by fellow Board members in recognition of his distinguished service in his work with the Board as a member, and on the Executive Committee and as Vice-President. A copy of the scroll follows:

"TRIBUTE OF ESTEEM, LOVE AND AFFECTION TO  
DR. HUBERT BENBURY HAYWOOD, B.Ph., M.D., L.L.D.

"The North Carolina State Board of Health wishes to recognize with sincere appreciation and respect the faithful service and splendid leadership furnished by HUBERT BENBURY HAYWOOD. Born in Raleigh in 1884, he has engaged in the general practice of medicine in Raleigh all of his professional life. In this individual and family service he has attained happiness and eminence and developed the background of understanding for guidance in preventive health services for his community and State. First appointed to The Board by his trusted friend, Governor J. C. B. Ehringhaus in 1934, each of the succeeding Governors, Hoey, Broughton, Cherry, Scott and Umstead, respectively, reappointed him to succeed himself. Much of the progress of public health in North Carolina during the last 20 years may be attributed to his vision, his matchless and sterling character, and the persuasive power of his diplomacy on many occasions. He has been faithful in his efforts on behalf of the State Board of Health and matters assigned to him have received his careful and painstaking consideration.

"DR. HAYWOOD is a Fellow of the American College of Physicians, a member of the American Medical Association, a member and past president of the Medical Society of the State of North Carolina and the Raleigh Academy of Medicine, and a lineal descendant of one of the original founders of The Academy. He was one of the senior members of the State Board of Health, and at the time of his resignation was Vice-President and a member of its Executive Committee. He wears his laurels with such dignity, refinement and scholarly understanding, together with his ever present genial smile and love and affection for his fellowman that these qualities clearly mark him as an understanding and loyal friend, an eminent physician and scientist.

"We salute you, DR. HAYWOOD, and bespeak for you that degree of satisfaction and sweet calm that can come only to one who has lived a rich and useful life in devoted and dedicated, and always intelligently constructive medical and health service to this and all future generations in North Carolina.

Signed: G. GRADY DIXON, M.D., *President*  
BEN J. LAWRENCE, M.D., *Vice-President*  
JOHN R. BENDER, M.D.  
A. C. CURRENT, D.D.S.  
G. CURTIS CRUMP, M.D.  
H. C. LUTZ, Ph.G.  
MRS. J. E. LATTA  
JOHN P. HENDERSON, JR., M.D.  
LENOX D. BAKER, M.D.  
J. W. R. NORTON, M.D., *State Health Officer*  
JOHN H. HAMILTON, M.D., *Asst. State Health Officer.*"

June 1, 1956. A meeting of the North Carolina State Board of Health was held at the Hotel Charlotte, Charlotte, North Carolina, Friday, June 1, 1956, 2:00-5:30 p.m., at the time and place of meeting of the 45th Annual Session of the North Carolina Public Health Association, with President Dixon presiding.

Also present for the meeting were Eugene A. Gillis, M.D., Region III Medical Director, USPHS, M. B. Bethel, M.D., Mecklenburg County Health Officer and E. H. Ellinwood, M.D., Guilford County Health Officer, both Past Presidents of the NCPHA, and Dr. Bethel is President of the Mecklenburg County Medical Society; and E. G. McGavran, M.D., Dean of the UNC School of Public Health and President of the NCPHA.



Dr. Gillis, Regional Medical Director of Charlottesville, Virginia, at the invitation of President Dixon, gave an informative discussion regarding the poliomyelitis vaccine allotted to North Carolina. He reported on the amount of vaccine which has stockpiled from manufacturers and remained unsold to druggists and physicians in North Carolina. He pointed out that the present 30 per cent to public agency and 70 per cent to private physicians as allocated by the State Poliomyelitis Vaccine Advisory Committee also provided that counties may become eligible to receive additional amounts on official requests from both the local health officer and the local medical society. He suggested that it might be well to devise some other plan since some of this accumulating surplus vaccine is not available to any one. With a present accumulation of over 100,000 ccs. surplus and a new total allotment of 245,000 ccs. today he reported that among the states in Region III North Carolina has the greatest accumulation of vaccine allocated for use by private physicians and undistributed by the manufacturers, and that other states are clamoring for it. Dr. Baker objected to the reference to the surplus in the 70 per cent allocation and also in regard to the occasional erroneous impressions left by newspaper publicity that seemed unduly critical of private physicians. Dr. Baker moved that the State Board of Health employee personnel be instructed by this Board not to release any more publicity in regard to the vaccine program that even mentions the 30%-70% distribution. Dr. Lawrence said he would like to second this motion with this amendment, which was accepted by Dr. Baker, "that no release be given out for publicity until said release has been carefully scrutinized by Dr. Norton, or someone designated by him to make certain that there is nothing in such release to reflect undue criticism upon the private practitioners of this State." Dr. Lawrence asked Dr. Norton if this was agreeable with him. Dr. Norton commented that he considered such a motion unnecessary and since Board minutes are public property it might be subject to interpretations unfavorable to the Board from a public relations standpoint. "Dr. Baker explained that the reason for his motion was the publicity that had come out of Raleigh, regardless of its source, had insinuated that 70% of the vaccine was being held tied up by private physicians for their use and was not available to the public health services and that it had not been made clear that, even though the vaccine was subject to being so issued, that any and all vaccine was subject to release and was available for purchase by public health agencies by the simple process of the local health departments with the approval of the local medical societies, applying for additional funds for purchasing such vaccine which is on the market and which is available. Previous publicity has not explained this aspect of the situation satisfactorily and there has been confusion both on the part of the public and many of the physicians of the State who have been justifiably concerned regarding the poor light in which the medical profession has been thrown by the failure of the public not getting a truer understanding of the situation." Motion unanimously carried.

The minutes of the Board meeting held on May 2, 1956, were approved.

Action on the minutes of the Executive Committee Meeting held on

April 19, 1956, was deferred until the next meeting of the Executive Committee.

Dr. John H. Hamilton, Director of the Laboratory of Hygiene Division, was present and discussed the advisability of expanding the cytology service. He reviewed what the Laboratory has been doing in cytology as a background and the policy that has been followed for the last twelve years. He added that any expansion for the next three years would best be reflected in the early fall budget presentation. Dr. Lawrence moved that whereas Dr. Hamilton has seen fit to present to the Board some remarks with reference to this service which has been rendered in the field of cancer cytology, namely, Papanicolaou, and whereas it appears from his brief presentation that it is a service which the Laboratory of Hygiene could advisedly render to the people of this State, and whereas the State Board of Health desires the full cooperation and support of the Medical Society of the State of North Carolina in its effort to render service to this State, the Board requests that Drs. Hamilton and Norton should, at such time as feasible, secure the opinion of the Medical Society of the State of North Carolina, and report back to the Board. Motion seconded by Mr. Lutz. Dr. Bender expressed a belief that the Board should make its own decision now. Motion carried.

Dr. A. H. Elliot, Director of the Personal Health Division, presented a request from Dr. Ann DeHuff Peters of the North Carolina Memorial Hospital, Chapel Hill, to use only normal salt solution in the eyes of newborn babies instead of silver nitrate. Dr. Elliot stated that he had written Dr. Peters that the question of permitting the use of antibiotics in the eyes of the newborn instead of silver nitrate had been presented to the Board on several occasions but at no time had serious consideration been given to departing from the use of silver nitrate (except in a proposed study of the effectiveness of penicillin at the medical schools). The matter was discussed at length, but no action was taken and deferred until the next Board meeting, in order for the Board to consider the feasibility of carrying out such a suggested procedure as outlined by Dr. Peters. Dr. Norton was requested to secure information on what materials other than silver nitrate had been used in this State and elsewhere and with what results. Such information should be presented at the next meeting of the Board. Dr. Baker suggested that it might be best for the Board to reach a decision as to what they thought would be best and let it be written into law.

Dr. Elliot also discussed the Crippled Children's program very briefly, and stated that the Credentials Committee on Urology and the Advisory Committee to the Crippled Children's program has approved Dr. Jack Hughes and Dr. Louis Carroll Roberts of Durham for admission to the Crippled Children's roster of Urology specialists and asked that the approval of the State Board of Health be given. Dr. Baker moved that Doctors Hughes and Roberts be approved by this Board for urology in the Crippled Children's Section as recommended by the Credentials and Advisory Committees, Motion seconded by Dr. Current, and carried.

Secretary Norton gave a brief report on the activities of the North Carolina Cancer Institute in Lumberton. The trustees of the North Carolina Cancer Institute, the North Carolina Division of the American Cancer Society and the Cancer Committee of the Medical Society of the State of North Carolina recommended an institution for treatment and care of indigent terminal cancer patients at or near a teaching center, and asked that Dr. Norton bring the matter before this Board. The subject was discussed at length. Dr. Current moved, seconded by Dr. Baker, that the Board of Health act favorably upon the following resolution.—“that an institution for care and treatment of terminal cancer patients be established at or near a teaching medical center.” Motion carried unanimously.

Then Secretary Norton requested informal comment on whether or not the Board would approve having funds for the institution, referred to above, if established, coming through our budget office as was done with funds for renovation of the Cancer Institute at Lumberton. It was the consensus that the Board would prefer that our budget office not handle this item.

Dr. Elliot suggested to the Board that Dr. W. Ralph Deaton, Jr., of Greensboro, be approved for lung surgery by the Board; and further that Dr. Deaton's approval for heart surgery be delayed until he has had more experience in this field in accord with recommendations of the appropriate Credentials Committee. Dr. Elliot submitted data on Dr. Deaton's preparation, training and experience. Dr. Baker moved, seconded by Mr. Lutz, that Dr. W. Ralph Deaton, Jr., of Greensboro, North Carolina, be approved as recommended by the Credentials Committee for lung surgery. Motion carried. Approval for heart surgery was withheld until the applicant has had more experience in this field.

In the absence of Dr. G. Curtis Crump, Chairman of the Committee to study the revision and recodification of public health laws, Dr. Dixon made a brief report. He also stated that Dr. Crump wished to be relieved of this chairmanship as he was so far away from the center of the State and that the Committee would get together and name a chairman later. In discussing revisions in the public health laws, the Board especially took cognizance of the change in designating the title of Secretary and State Health Officer to Commissioner of Health. At a meeting on September 23, 1955, a motion was made by Dr. Crump, seconded by Dr. Current, suggesting the following terminology: “that the term ‘Commissioner of Health’ or ‘Health Commissioner’ be used instead of the present ‘Secretary-Treasurer and State Health Officer.’ ” Dr. Current moved that the terminology used in the minutes of the September 23, 1955 Board meeting be rescinded and that the Board continue to use the title of “Secretary-Treasurer and State Health Officer” as at present. Dean McGavran asked if he might comment on the basis for the general trend away from the use of “Officer” in many states, but Dr. Lawrence insisted that the vote be taken and that then a courteous hearing be accorded Dr. McGavran, and this was done. Motion seconded by Mr. Lutz, and carried.

In a further discussion of the Crippled Children's program and Advisory and Credentials Committees, the following motions were made: Dr. Baker

moved that the names of Dr. Julian Deryl Hart, Duke Hospital, Durham and Dr. N. A. Womack, N. C. Memorial Hospital, Chapel Hill, be deleted from the thoracic and cardiac Credentials Committee. Motion seconded by Dr. Lawrence, and carried.

Dr. Baker moved that the name of Dr. James Austin Valone of Raleigh be added to the list eligible for plastic surgery. (There was no report of request to, or action by, the Credentials Committee). Motion seconded by Dr. Lawrence, and carried.

Dr. Baker moved that Dr. J. Leonard Goldner, Durham Orthopedist and hand surgeon, be added to the Advisory Committee. Motion seconded by Dr. Bender, and carried.

Dr. Lawrence moved that the name of Dr. Frank R. Johnston, General Surgeon, Bowman-Gray School of Medicine, Winston-Salem, be added to the Advisory Committee list. Motion seconded by Dr. Bender, and carried.

Dr. Baker moved that Dr. J. S. Gaul, Orthopedist, be removed from the Advisory Committee of the Crippled Children's Section and that his son, Dr. John Stuart Gaul, Jr., be added instead. Motion seconded by Dr. Lawrence, and carried.

Dr. Baker moved that the President-Elect of the North Carolina Academy of General Practice be made an ex-officio member of the Advisory Committee of the Crippled Children's Section. Motion seconded by Dr. Lawrence, and carried.

Dr. Baker moved that Dr. Wayne Jefferson Benton of Greensboro, be made a member of the advisory Committee of the Crippled Children's Section. Motion seconded by Dr. Lawrence, and carried.

On motion duly made and seconded, the meeting adjourned at 5:30 p.m.

## CHRONIC DISEASES—A JOINT RESPONSIBILITY OF PRIVATE PRACTICE AND PUBLIC HEALTH \*

By J. W. R. NORTON, M.D., M.P.H., F.A.C.P.\*\*

Raleigh

In the long span of recorded time on this planet fifty years is as the twinkling of an eye but medical progress during this period has exceeded that of many prior centuries. For the twenty-eighth year after the establishment of the North Carolina State Board of Health, Dr. Cooper in his chronological summary for 1905 had this to say for a year just before the beginning of intensified joint efforts against communicable diseases:

"General Assembly established State Laboratory of Hygiene; imposed water tax of \$64 on all public water companies; voted \$600 annually for the support of laboratory. Small appropriation made it necessary for the Department of Agriculture to continue to assist State Board of Health. Annual appropriation, \$2,000."

Even the barest outline or summary this year of public health services provided by the state and the sixty-nine local health departments serving all 100 counties would require many pages. Concurrently with the well-known vast and rapid changes in the private practice of curative medicine has come similarly impressive progress in preventive medicine and public health. Through the years a few physicians have voiced fears that they would have no work if preventive measures were applied to all ills and injuries practically preventable. We heard such comments from a few with regard to vaccinations against smallpox, typhoid, diphtheria, whooping cough and tetanus, against the planned parenthood program, against the school health program, against the venereal disease and tuberculosis control programs. We hear less of these short-sighted objections today but there are a few who would limit public health services to the indigent and against only the communicable diseases.

With improved educational methods and more widespread use of preventive measures, prompt diagnosis and greatly enhanced effectiveness of treatment procedures the communicable diseases have come under relatively effective control with the exception of tuberculosis. Recent examples are the Salk vaccine against poliomyelitis and certain antibiotics against rheumatic fever. The former Captain of the Men of Death, tuberculosis, has dropped until now it is not even among the first ten killers except in limited age groups.

In 1954 diseases of the heart and blood vessels, cancer, accidents, nephritis and diabetes accounted for 22,623 deaths out of a total of 32,072 in North Carolina. Mental disorders accounted for half the persons hospitalized.

\* Read before the Conjoint Session of the Medical Society of North Carolina and the State Board of Health, Pinehurst, May 4, 1955.

\*\* Secretary-Treasurer of the State Board of Health and State Health Officer.

Arthritis caused an enormous amount of disability and hospitalization. Improper nutrition caused decreased vitality and lowered efficiency in many. All these, except accidents, are in the non-communicable field or area of chronic disorders. Most medical leaders agree that much progress could be made against them by health education, early diagnosis and prompt medical treatment and supervision.

We are now at about the stage of medical knowledge regarding these chronic non-communicable disorders in which our predecessors found themselves when joint efforts of private practice and public health began to be coordinated against the communicable diseases. The opportunity is afforded us to proceed humanely and cooperatively as was done so successfully against the infectious diseases.

When the Medical Society of North Carolina stimulated the establishment of the State Board of Health and local health departments, medical leaders considered the situation with regard to communicable diseases to be intolerable. Our successful joint efforts have prolonged the life span and helped to create the present intolerable situation with regard to the chronic non-communicable disorders and our mechanical progress has contributed, at least in part, to our deplorable accident situation. Even such problems as rehabilitation and stream and atmospheric pollution should be of active concern to physicians in private practice and in public health. In one week in December, 1952, the London smog accounted for more excess mortality, even in proportion to the population, than during any week of the great cholera epidemic of 1866.

Our state is fortunate in that we have an alert medical profession well represented on the state and local boards of health. We are one of the few states with full coverage by sound local health departments. We have made a beginning in cardiovascular disease diagnostic work. We have a good start in finding cancer in the early stages when, in many cases, something can be done to control it—provided the diagnostic efforts are not diverted too obviously into estimating the size of the pocketbook before proceeding with a medical diagnosis. Harnett County has an excellent program of diabetes case-finding and supervision and physicians throughout the state have cooperated in the annual week of diabetes case-finding. Cumberland County has started an obesity control service. Halifax, Harnett and some of the other counties have had limited experience in multiple screening technics. The mental health services have expanded recently along lines similar to the tuberculosis control work for early case-finding, guidance and then post-hospitalization follow-up to prevent a breakdown. The nutrition service has been strengthened. A recent grant by the Kellogg Foundation has enabled the beginning of an intensive program in control of home and farm accidents. A cooperative program with the Motor Vehicle Bureau has been stimulated by Cornell University consultants in a study of motor vehicle design as it may contribute to, or tend to prevent, serious crash injuries. Some progress in the treatment of arthritis, atherosclerosis and bursitis has been made and there is increasing hope of improvement in our knowledge regarding their prevention.

The Rural Health and Public Relations Committees have contributed in a fundamental way in laying the groundwork for a better understanding of, and a willingness and desire to proceed against, chronic disorders, and accidents—just as was the case in earlier improved control of communicable diseases. The work of the private practitioner will be just as ethical and much more satisfying as all chronic disorders are promptly diagnosed and control efforts are increased in effectiveness. Our state is in a strategic position to lead the way in combating chronic disorders and accidents just as private practitioners and the public health team joined hands to pioneer in communicable disease control.

(For synopsis of departmental reports see THE HEALTH BULLETIN, issue June, 1955.)

## STATE AND LOCAL HEALTH DEPARTMENT SERVICES IN NORTH CAROLINA \*

By J. W. R. NORTON, M.D., M.P.H., F.A.C.P.\*\*

Raleigh

Since so many know only part of the services of the state and local health departments it seems appropriate to outline these so that we may have more informed medical guidance in future program planning.

The state and local health departments in North Carolina have enjoyed a growth in quality and quantity comparable to that of general hospitals and private practice during the same period. This medical society was in 1877 and for two years the State Board of Health with an annual appropriation of \$100.00. In 1879 a Board of nine, similar to that of today, was set up. It was twenty-nine years later that a full-time physician was employed. The fumigation, quarantine and the regulation-enforcement emphasis era were as unsatisfactory in prevention as the similar groping progress in private practice of the same period were in treatment.

The nine-member State Board of Health (five appointed by the Governor and four by this Medical Society—six of these physicians) with staggered four-year terms, formulate policies and prescribe regulations and procedures that are carried out administratively through the 300 central staff and 1200 local department employees.

The central staff organization is set up under the State Health Officer and Assistant State Health Officer with six Division Directors and about thirty section chiefs. The bare listing of titles suggests the programs and services.

1. Central Administration includes budget, personnel, files, printing, mailing and public relations.
2. The Epidemiology Division embraces sections as follows:—acute communicable diseases, public health statistics, venereal diseases, tuberculosis, occupational health, home and farm accident prevention, and veterinary public health. Epidemiological consultations are increasing in frequency and usefulness.
3. The Laboratory Division protects the public health through services to private physicians, hospitals and health departments, through biologics, microscopy, cultures, serology, water analyses, chemistry, and approval of laboratories. The growing library should be of increasing helpfulness to health staffs and private physicians.
4. The Local Health Division has sections as follows:—administrative, public health nursing, mental health, health education, and (jointly with the Education Department) school health.
5. The Oral Hygiene Division provides education through visual media, lectures and literature and also services in consultation, correction and prevention.

\* Presented during Conjoint Session—Medical Society of North Carolina and State Board of Health, Pinehurst, 2 May, 1956.

\*\* Secretary-Treasurer of the State Board of Health and State Health Officer.



6. The Personal Health Division includes the maternal and child health, crippled children, nutrition, cancer, and heart disease sections.
7. The Sanitary Engineering Division includes four sections: sanitation, (environmental, public eating places, milk, and shellfish), engineering, insect and rodent control, and stream sanitation. Radio-active wastes, air and stream sanitation and housing are of increasing importance.

Local health departments began in 1911, under the leadership of North Carolina's first full-time health officer, Dr. Watson S. Rankin, and reached the entire State in July, 1949. From the beginning there has been local autonomy, flexibility and adaptability and medical guidance. Strong local boards actively supported by the county medical society and public have assured progressively better health services.

From the minimum of a health officer, public health nurse, sanitarian and clerk (each full-time) and a ten-week oral hygiene program to a large department such as Mecklenburg's (with about 150 workers, including a full-time dentist) the services are provided mainly on the economical generalized basis.

Local health department services may be briefly described under seven headings:

1. Sanitation—The utmost in tact and leadership are required to assure clean drinking water and milk and safe disposal of human wastes, safe food processing and vending establishments and healthful schools and camps. More should be done to protect our streams and the air from contamination and to promote better housing for all, including migratory farm laborers. Certain insects and rodents have depleted food, clothing and shelter and spread epidemics and the health department team wages war on those harmful to us. The approach is through education and helpful leadership rather than authoritarian.
- ✓2. Good maternal-child hygiene begins with planned parenthood and extends through prenatal, natal (including midwife supervision), post-natal, infant, pre-school and school periods. Nutrition and oral hygiene services are essential. Crippled childrens' services and rehabilitation restore many to useful, happy lives. In this area we have reached the best development as a cooperating team of private physicians, hospitals and the public health staff and always including research and teaching. Research indicates that a constructive maternal-child health program will definitely reduce the incidence of mental defectives, juvenile delinquency and possibly some of the later neuroses, psychoses and degenerative diseases. This is not too far back to go in planning a preventive program in gerontology.
3. Communicable disease control is dependent on sanitation activities, immunizations wherever available, and as in all other health progress the cooperation between the public health team and the private practitioner-hospital team is essential. Progress against the diarrheas, dysenteries, smallpox, typhoid, tuberculosis, diphtheria, and malaria shows what this coordinated effort can accomplish. Health workers have had an important role in improving the treatment methods in

tuberculosis and venereal diseases and as a result many of these can now be better treated in doctor's offices.

4. Laboratory services of the local health department assist in the clinic programs and also aid the private physician. Prompt diagnostic aid in commoner communicable diseases and in milk examinations are examples.
- √ 5. Health education is the job of the entire staff under the stimulation and leadership of those with special training in this field. All individual, group, and mass audio-visual and other media are useful. The nurse or sanitarian can give detailed instruction to supplement the brief visits with, and to, the family physician. The health department can inform the public regarding quackery and faddists and encourage early supervision by the competent and ethical medical practitioner.
6. Public health statistics constitute the inventory, the income and the outgo, of human resources. They may explain losses and point the way to gains. They assist the private practitioner by alerting him in diagnoses and point the way for teamwork in recognizing and combatting enemies of health and life. Sound evaluation and program planning are impossible without accurate health bookkeeping.
7. Chronic diseases, mental disorders and accidents can be attacked jointly by those in research and teaching, health departments and private practitioners by the same methods proved useful before against former common communicable diseases. Diseases of the heart and blood vessels, cancer, mental disorders and accidents, are increasing in our aging and hurried population. We have much to learn regarding the etiology of mental disorders and the chronic degenerative diseases. We have reason to believe early case-finding and medical guidance with nurse follow-up can be useful in most cases. What part is played by nutrition, endocrinology or viruses we hope to learn more about soon. Health statistics are useful in identifying problems in these areas and health departments can inform the public on the necessity to cooperate in prevention and treatment.

Services of local and state health departments are so intertwined that it may become difficult to distinguish them. Wherever direct services or specialist consultation are not feasible through the local health department, the state provides them.

Services of local health departments are recognized as the most important, but any large business requires a reasonable overhead guiding and cohesive force. Hence central administration, public health statistics and laboratory services. Most local department personnel serve on a generalized basis and, therefore, the state provides a few state or district specialist consultants in such fields as sanitary engineering, nutrition, laboratory activities, public health nursing and epidemiology. Direct services to local health departments and private physicians are provided in maternal and child health, crippled children, laboratory examinations and supplying of biological products, oral hygiene, tuberculosis and venereal disease case-finding, accident (home and farm) prevention, and

health education. Private physicians are also served through laboratory aids, epidemiological consultation and statistical services and study committees of this Society through statistical, epidemiological, and other services. Many consultative health services are provided other state agencies and institutions such as sanitary engineering, nutrition and food service with the Medical Care Commission, Prison Department, Tuberculosis and Mental Hospitals, and Training Schools. Consultation is provided municipalities regarding design and construction of water treatment and sewage disposal plants. Materials used in the manufacture of bedding are inspected. Insect and rodent control assists municipalities and industries. Occupational health activities protect workers and promote industrial development. Veterinary public health services (working closely with the Agriculture Department) help control diseases which primarily attack animals but secondarily man, and stimulate the livestock industry. Oral hygiene has far-reaching effects in maternal and child health, reduces absenteeism and probably reduces the degenerative diseases of our aging population. Mental health services are being developed along lines similar to our tuberculosis control work; namely, some central or district assistance in case-finding and consultation and local health department instructional guidance and follow-up. Public health has played a key part in the only considerable reduction of mental disorders, in paresis and pellagra.

These many services provided by the state and local health departments are helpful to all our four and a half million citizens and enhance the attractiveness of private practice throughout our state. By preventing disability and postponing death the standard of living is raised. The private physician or dentist can be called earlier when illness or injury does occur, if the family has not previously been handicapped by preventable disabilities. Agriculture and industry are stimulated and tourists are attracted to come and to return. The people are becoming better informed on what they may reasonably expect in prevention, diagnosis, treatment and rehabilitation and if any area is neglected the public relations of every physician and of organized medicine suffer accordingly.

The cost of these public health services is amazingly low. From a total expenditure for fiscal 1955 of \$8,007,917.44, or less than \$2.00 per capita, seventy per cent (\$5,623,263.32) was used by local health departments. Much of the remainder was invested in direct services or in consultation services to local health departments, to other agencies and institutions (state and local) and to private physicians and hospitals. For clinic and corrective services private physicians were paid \$240,202.78, and hospitals received \$548,253.42. Yet the per capita cost of local health services was \$1.385 with county-city appropriations providing 75%, and for state health department services, the cost was \$.587. The continuation of this ethical teamwork of a sound and balanced preventive service, with emphasis on economical decentralization, joined with progressive and unselfish private practice offers our best promise of continuing our free enterprise system.

## **BIENNIAL REPORT CENTRAL ADMINISTRATION**

(July 1, 1954—June 30, 1956)

There were no important changes in the organization of the State Health Department during the biennium beginning July 1, 1954, and ending June 30, 1956. Under the simplified form of organization which went into effect February 1, 1950, the work of the Department continued to be carried on smoothly and without any complications.

As the work in the Central Administration Division is carried on under the direction of the Secretary and State Health Officer, the activities of this Division are taken up first in this biennial report. Briefly, the following Sections comprise the Central Administration Division: Budgets, Public Relations, Central Files, Personnel, Mailing Room, Multilith, and Library. Hence, the Secretary and State Health Officer not only is the executive head of the State Health Department but a Division Director to whom the Chiefs of the above named Sections are answerable. His office involves not only executive and administrative duties, but also responsibilities of a liaison nature. He maintains contact with other State Health Departments, certain other agencies within the State, and with many officials engaged in various activities which have any Public Health aspects. This means that the work of the Secretary and State Health Officer has expanded considerably during recent years, in which there are arisen a multiplicity of voluntary agencies which concern themselves, either wholly or in part, with health. It is the duty of the Secretary and State Health Officer not only to familiarize himself with the programs and objectives of these agencies, but to study their relationship to Public Health officially administered.

In this connection, candor compels the statement that, in some cases, outside organizations have shown a tendency to duplicate some of the activities which the law places in the hands of Public Health officials. However, no really serious difficulties have been experienced because of this. Public Health, during the past biennium, as in former years, has continued to administer the affairs legally committed to its charge, ignoring any minor infringements which may have appeared in the entire pattern.

### **HEALTH OFFICER'S ACTIVITIES:**

First, a brief summary of the activities of the Secretary and State Health Officer during the period covered in this report. He has been active in his participation in the affairs of those organizations and groups with which the North Carolina State Board of Health is affiliated. Under the law, he is answerable to the Medical Society of the State of North Carolina, to which he makes an annual report when the Society and the State Board of Health meet in Conjoint Session. During the biennium, July 1, 1954-June 30, 1956, the Secretary and State Health Officer attended many

meetings both in and outside North Carolina. While space does not permit a detailed report on all these, it is deemed advisable, to name some, as well as some of the responsibilities which have been placed upon the Secretary and State Health Officer because of the official capacity in which he serves North Carolina.

Out-of-State meetings attended included all regular sessions of the American Public Health Association, the State and Territorial Health Officers' Association, Southern Medical Association, the Southern Branch, American Public Health Association, and others. During the biennium, he completed his term as President of the Southern Branch, also as President of the State and Territorial Health Officers' Association and of the American College of Preventive Medicine.

Other responsibilities placed upon the Secretary and State Health Officer during the biennium, included his appointment as a member of the Advisory Committee of the North Carolina School of Public Health in Chapel Hill, as Chairman of the Governor's State Advisory Committee on Poliomyelitis Vaccine, and he was appointed by President Eisenhower as a delegate from the United States to the Eighth World Health Assembly in Mexico City, in May, 1955.

In addition to the above, the Secretary and State Health Officer was made ex-officio Chairman of Postmortem Medicolegal Examinations, by act of the 1955 General Assembly.

Thus, we have a brief outline of the duties and activities of the Secretary and State Health Officer for the period covered by this report.

#### **BUDGET SECTION:**

Attention now is turned toward the Budget for the two fiscal years covered in this report. From July 1, 1954-June 30, 1956, 2,244 purchase orders and 32,983 vouchers were issued, involving a State-local budget of \$19,268,087. Monthly reports of 79 local health departments, representing combined annual budgets for the two-year period of \$11,801,935, were received and audited by the Budget Section. The State-local budgets, totaling \$19,268,087, were divided as follows: 1954-1955, \$8,559,035; 1955-1956, \$10,709,052. Local budgets for the two fiscal years of the biennium, totaling \$11,801,935, was divided as follows: 1954-1955, \$5,624,581; 1955-1956, \$6,177,354.

In the grand total for the biennium listed above, \$1,119,307 was Federal Polio money; \$118,207 was new money in the State appropriation provided for Mental Health, and \$485,904 represented increased local support for Public Health.

#### **PUBLIC RELATIONS:**

During the biennium, the Senior Publicity Officer, attached to Central Administration, prepared and transcribed 208 radio programs, 104 being delivered over State WPTF in Raleigh, and a like number over Station WWNC in Asheville. Both stations give free time for this public service, while all transcriptions are made, without cost, by Station WPTF in Raleigh which, in addition to giving time and material, pays the weekly postage on tape recordings sent to Asheville.

The Publicity Officer also prepared and distributed all major press releases for the State Board of Health. During the biennium, he attended sessions of the Southern Branch, American Public Health Association, and reported two annual sessions of the State Medical Society, including the Conjoint meetings of the Society and the State Board of Health. He also assisted, in a liaison capacity, in publicizing cruises sponsored by the North Carolina Academy of General Practice, in 1954, and the Duke School of Medicine, in 1955.

#### CENTRAL FILES SECTION:

The Central Files operations continued to expand and adjust with increasing and changing program activities. Centralized control establishes the responsibility for recording, protecting, and filing the official records and their finding when needed. It controls the systematic retirement of records to storage, and the disposal of those no longer of administrative, historical, research, or legal value.

During the biennium, 405,280 records were received for filing—this amount filled over 81 file drawers to capacity. There were 72,671 searches for material and information. Emphasis was placed not only on improving the accuracy of operations, but also on services to the users.

#### PERSONNEL SECTION:

Classification plans for both State and local health departments were kept current and responsive to changing programs, by adding 23 new class specifications, revising 49 and deleting 11. Only 7 State salary ranges were revised, whereas 86 local salary ranges were revised, primarily increasing some of the maximums each year to allow local authorities the opportunity to advance salaries as needed. Procedures were worked out with the Merit System Office and the State Personnel Department to facilitate establishing new classes of positions and revising existing class specifications and salary ranges for the State staff. Other activities included distribution of a new Personnel Manual prepared by the State Personnel Department, the conduct of a referendum of State Board of Health Personnel regarding coverage by the Social Security Act, a new plan for two representatives of Public Health and two of the county commissioners to attend meetings of the Merit System Council, annual surveys of State personnel 60 years of age and over for retirement purposes, continuous Merit System Examination program for certain clerical and professional positions for State and local departments, administration of the salary increment program each year for the State staff and intensified recruitment for over a year for Industrial Hygiene Engineers.

During the biennium, the Personnel Office handled the following transactions for the State Board of Health: 212 appointments, 210 separations, 73 reclassifications, 402 salary increments, and 7 other salary changes. As of June 30, 1956, there were 339 employees of the State Board of Health and 28 vacant positions. This is an increase of 20 employees over last biennium. In the local health departments, there were 605 appointments, 580 separations, 229 reclassifications and 1,452 salary increments.

As of June 30, 1956, there were 1,181 full-time employees in local health departments and 49 vacant positions. This is an increase of 150 employees from the last biennium.

#### **MAILING ROOM—MULTILITH SECTIONS:**

During the biennium, the Mailing Room distributed 3,390,430 pieces of Public Health literature, including 1,447,000 copies of the Health Bulletin. Pieces of mimeographed literature sent out totaled 2,078,084. The report of the Mailing Room also includes the number of envelopes and other material addressed for the various Divisions of the State Board of Health. The Mailing Room also attends to the distribution of supplies for clinics, midwives and those in charge of maternal and prenatal activities.

The total number of copies printed on the Multilith machine, during the biennium, was 8,500,805. Copies passing through the cutting machine totaled 2,602,050, while 1,920,150 forms were padded.

#### **MEDICAL—PUBLIC HEALTH LIBRARY:**

For the first time, Central Administration is reporting the activities of the Medical-Public Health Library, which was established June 1, 1954, by a grant from the Zachary Smith Reynolds Foundation.

Statistical data for the first year of operation are necessarily incomplete. During the second fiscal year of the biennium, however, 2,751 visits were made to the Library; 1,253 loans of books (including bound journals) and 448 loans of unbound journals and other unbound publications were made; 953 telephone calls were made and received; 364 memoranda were sent out calling attention to journal articles believed to be of particular interest to the recipients; 181 newspaper clippings having to do with medical, public health and allied matters were circulated among Division Directors, and 227 books were added to the Library collection. The weekly Library Notes, calling attention to published material of a public health or medical nature and listing recently acquired Library books, have been issued regularly since soon after the Library was started.

From time to time, during the biennium, the Library has been visited by physicians, nurses and Public Health workers from various parts of North Carolina and, less frequently, from other States and foreign countries.

A number of bibliographies have been prepared for staff members of the State Board of Health and others. Material needed for research and other purposes has been located and supplied. Notices have been sent to new Public Health workers inviting them to visit the Library and acquaint themselves with what it had to offer them in facilities and services. Information cards filled out and returned by new staff members have been classified by subjects in which they expressed interest and filed. A number of books and bound journals, not available in the Library, have been obtained on interlibrary loan from the Library of Congress, the Duke University Medical Library, the Division of Health Affairs of the North Carolina Memorial Hospital and others. Reprints of journal articles have been obtained for persons requesting them. Through the courtesy of the Public Health Statistics Section, articles available for only a brief loan

period have been photostated for permanent use by those interested in the subjects covered. Newspaper clippings, leaflets, pamphlets, reprints and similar material have been assembled, classified and filed for preservation and use as needed.

The biennium covered by this report of the State Board of Health includes approximately the life of the Medical and Public Health Library. With funds made available by a grant from the Zachary Smith Reynolds Foundation, it has been functioning since June 1, 1954.

Because of the necessity for card-indexing the approximately four thousand volumes already on hand when the Library was started, bringing some semblance of order out of the mass of unclassified journals and other publications that had accumulated and attending to other tasks preliminary to bringing the Library into full functioning, statistical data for the first year of operation are necessarily incomplete. During the second fiscal year of the biennium, however, 2,751 visits were made to the Library for or in connection with various types of library service; 1,253 loans of books (including bound journals) and 448 loans of unbound journals and other unbound publications were made; 953 telephone calls were made and received in connection with library service of various kinds; 364 memoranda were sent out calling attention to journal articles believed to be of particular interest to the recipients; 181 newspaper clippings having to do with medical, public health and allied matters were circulated among division directors; and 227 books were added to the Library collection. The weekly *Library Notes*, calling attention to published material of a public health or medical nature and listing recently acquired Library books, have been issued regularly since soon after the Library was started.

From time to time during the biennium the Library has been visited by physicians, nurses and public health workers from various parts of North Carolina and, less frequently, from other states and foreign countries. It has of course been a pleasure to explain the Library's work and facilities to these visitors and to assist them in making use of its services. A number of bibliographies have been prepared for staff members of the State Board of Health and the State Laboratory of Hygiene and others. Material needed for research and other purposes has been located and supplied. Notices have been sent to new public health workers inviting them to visit the Library and acquaint themselves with what it had to offer them in facilities and services. Information cards filled out and returned by new staff members have been classified by subjects in which they expressed interest and filed. A number of books and bound journals, not available in the Library, have been obtained on Interlibrary Loan from the Library of Congress, the Duke University Medical Library, the Division of Health Affairs of the North Carolina Memorial Hospital and others. Reprints of journal articles have been obtained for persons requesting them. Through the courtesy of the Public Health Statistics Section, articles available for only a brief loan period have been photostated for permanent use by those interested in the subjects covered. Newspaper clippings, leaflets, pamphlets, reprints and similar material have been assembled, classified and filed for preservation and use as needed.



The medical, public health and other technical publications being received regularly have been supplemented during the past few months by sixteen of the leading state medical journals, as well as *Today's Health*, the American Medical Association's health publication for the layman, and *Life and Health*, also addressed to the health-minded who are unversed in medical terminology. The recently added publications are not only proving unusually helpful to Library users eager to keep abreast of the latest developments in the medical, nursing and public health fields but should also provide valuable research material as they accumulate over the years and decades, since their main articles are listed regularly in the American Medical Association's *Quarterly Cumulative Index Medicus*, *Current List of Medical Literature*, issued by the Armed Forces Medical Library, and other reference works.

Financial restrictions have seriously limited the number of publications the Library has been able to have bound; but all those which are considered to be of permanent value for research purposes are being preserved, even when not bound, and of course are readily available when needed. It goes without saying, however, that binding is by far the most satisfactory means of preserving printed material. It is hoped that before long the present stiff restrictions on binding will be relaxed sufficiently to enable the Library not only to bind more of the publications currently being received but also to provide this protection retroactively to a number of publications not now being bound.

It is pleasing to note that, as time goes on, the Library is gradually widening its sphere of usefulness and increasing its service to those turning to it for help.

## PERSONAL HEALTH DIVISION

(Biennial Report—July, 1954-June, 1956)

The 1954-56 reports of activities of the five sections of the Personal Health Division follow:

For the first time in many years, the maternal and child health section has a consultant in obstetrics. We were without the services of a consultant in pediatrics for the whole biennium. Four excellently prepared pediatricians expressed an interest and were interviewed, but declined our offer because of salary limitations.

A three-day refresher course in obstetrics and pediatrics was given each year of the biennium at Bowman Gray for general practitioners and health officers doing prenatal and well baby clinics for local health departments under the section's sponsorship. An eight-day course in midwifery was given each year for fifty midwives. A three day special course in nurse supervision of midwives and prenatal clinics was given annually for public health nurses.

A special study of fetal and neonatal mortality started at the close of the preceding biennium and was continued through this biennium. The study is being conducted in the hospitals of the three medical schools. Exhaustive questionnaires are completed on all mothers of stillborn infants or infants that die before they are 28 days old. The questionnaire also includes pertinent data on the infant or still-birth. Similar questionnaires are completed on a like number of mothers whose babies lived—controls. During the last year of the biennium the section, with the cooperation of the department of vital statistics, started a plan of tabulating the births, still-births and neonatal deaths by hospitals. Only infants born in a hospital and dying in the hospital within 28 days are charged against a hospital. The report gives the mortality rate on stillbirths, live births and the two combined. The reports are sent to the administrators of all the hospitals. The hospitals are not identified except that each administrator's individual hospital is identified to him. We hope this will stimulate a competitive interest and result in better obstetrics and pediatrics.

The obstetrical consultant has worked with local health department personnel, clinic directors, hospitals and the private medical profession in a constant effort to improve prenatal care and delivery care. In addition to immediate improvement in prenatal and delivery care the long term goal is the prevention or reduction of stillbirths and premature births.

Shortage of funds near the end of the biennium made it necessary to reduce weight eligibility of premature infants from four pounds to three pounds and eight ounces for about seven weeks. The Children's Bureau reallocated funds to North Carolina and we returned to the four pound limit. The program still maintains six primary centers for the care of the premature and nine secondary centers. During the biennium the section authorized hospitalization of 726 premature infants for which the hospitals

were paid \$356,686.15 and the participating pediatricians were paid \$28,-176.00, making a total of \$384,862.15.

The number of maternal and well baby clinics held during the biennium were as follows:

No. clinic sessions .....	9,545
For white only .....	1424
For colored only .....	2279
For white or colored .....	5841
For maternity patients only .....	1764
For infant and preschool only .....	3135
For maternity or infant and preschool .....	4645
Attendance—	
Maternity patients .....	65,628
Infant and preschool .....	100,401

Our mailing room distributed literature dealing with the care of mothers and children as follows:

Prenatal Care .....	49,824
Prenatal Letters .....	19,616
Prenatal Dental Letters .....	2,294
Baby Coming Leaflets .....	72,796
Baby Coming Posters .....	250
So You're Expecting A Baby .....	8,784
Are You Planning Your Family .....	1,758
Safe Motherhood .....	1,836
Prenatal Clinic Cards .....	32,572
Infant Care .....	83,560
Baby's Feeding Cards .....	113,741
Breast Feeding .....	6,949
Infantile Diarrhea .....	5,350
Your Child from One to Six .....	23,567
Into Childhood .....	4,936
Your Child from Six to Twelve .....	27,510
The Adolescent in the Home .....	10,363
Healthy Personality .....	1,480
Good Posture in the Little Child .....	760

### Crippled Children's Section

The Section received an increase in Federal Grants-in-Aid for the fiscal year 1955-56 which enabled it to reestablish service for many of the handicapping entities that had been dropped during the previous fiscal year. These include conditions in the field of neurological and urological surgery. We were able to re-establish the support of the Rheumatic Fever Center in N. C. Memorial Hospital—University of N. C. Medical School—which had been discontinued in December, 1954 on account of lack of funds. Four new orthopedic clinics have been added making a total of 43 in 41 counties holding 43 to 44 clinic sessions per month.

Two of the clinics listed on the program are supported by local funds, the section providing nursing consultation and physical therapy and nutrition services. Upon these clinics attaining an average session patronage of over 40, they will be accorded full support by the section.

The eleven clinics formally supported by Vocational Rehabilitation have been taken over by this section.

The Rheumatic Fever Program has been expanded by the addition of new centers in Memorial Mission Hospital, Asheville; Duke Hospital, Durham; and the Pitt County Health Department, Greenville making a total of five such facilities.

The section's support of surgery for congenital heart continues to increase from year to year as does that of plastic surgery and the correction of neurological and urological defects. It continues support of summer camps for Crippled Children in Washington and Salisbury by the provision of camp planning, camp supervision, physical therapy and nutrition counseling in both and speech therapy and a nursing service in one.

The long planned Speech and Hearing Defects program is about to get underway in a pilot Center at Duke Hospital and service for hearing defects only has been made available under program support at N. C. Memorial Hospital and N. C. Baptist Hospital.

Increase in Federal aid in the past fiscal year has enabled the section to support all services requested under the program and it is presumed that such aid will be sufficient in the present fiscal year to cover the additional services incident to the expansion of old programs and the development of new.

During the two year period training has been conducted by means of post clinic and staff conferences, by seminars in Pediatrics and Orthopedic Nursing, institutes in Rheumatic Fever and by the detailing of two nurses to a seminar on Rheumatic Fever and Rheumatic Heart Disease at Yale University.

In 1955 for the first time since the beginning of the program, the number of paralytic residuals of poliomyelitis cared for was exceeded by another entity, i.e.—club foot.

During the biennium, the section has lost a nurse orthopedic and educational consultant, a field representative (western section), one full time and one part time physical therapist and one part time medical social worker in the Pilot Rheumatic Fever Center in N. C. Baptist Hospital. Two additional physical therapists and one more medical social worker are essential to the proper function of the service. They have not been available. The nurse and field representative have not been replaced due to lack of qualified applicants. In addition to their attendance upon the State Orthopedic Clinics, the Physical Therapists conduct periodic clinics in the Health Departments of Catawba, Rowan and Alamance Counties.

## A. Case Statistics of Major Services (Central Office)

1. Authorizations issued	5,936
a. In-patient hospital authorizations	3,984
b. Out-patient authorizations	1,952
1. Rheumatic fever clinic	1,287
2. Other out-patient functions for which we pay	665
2. Extensions authorized	600
3. Admissions to general hospitals (in-patient)	3,197
4. Discharges from general hospitals (in-patient)	3,253
5. Appliances purchased	2,109

## B. State Clinics

1. Number of clinics	43
a. Clinic Sessions held	964
b. Sessions reporting	963
2. New patients registered for whom CC-13 is made out	9,664
3. Return admissions	32,730
4. Total attendance (B 2 plus B 3)	42,394
5. Hospitalization requested (Operation and other treatment)	2,852
6. Casts applied, removed or adjusted	2,229
7. Braces advised, measured, fitted or adjusted	2,265
8. Dressings (applied or removed)	130
9. Bandages (Proprietary( or strappings advised or applied)	192
10. Corrective shoes advised, applied or adjusted	7,272
11. Physical therapy prescribed	5,632
a. Clinic or home	5,576
b. Purchased service	56
12. Dietetic treatment advised (Include C. L. O.)	3,532
13. Prostheses advised	183

## C. Field Service

1. Conferences With	
a. State Staff	409
b. Surgeons	1,629
c. Health Personal	4,362
d. Welfare Personnel	894
e. Official groups	117
f. Non-official groups	249
g. Pre or Post clinic conferences	288
h. Other conferences	2,767
i. Talks	103
1. Number in attendance	1,896
j. Number In-service Institutes or Workshops: Conducted and	
Participated	40
Attended	76
1. Number in attendance	1,537

k. Professional meetings .....	102
l. Polio Nursing Workshop .....	1
m. Rheumatic Fever and Cardiology Institute .....	1
n. Supervisors Annual Conference .....	1
o. Classes attended .....	5
2. Clinic (State Personnel only)	
a. Total of clinic attendance state field personnel .....	1,400
b. Patients interviewed .....	11,120
c. Treatments by physical therapists .....	5,080
d. Cases referred to N. C. O. H. Gastonia .....	2
3. Field Operations—other than clinics (State Personnel)	
a. Home visits .....	312
b. Patient absent .....	66
c. Cases referred to clinic or surgeon (from home visit) ..	85
d. Cases referred to Vocational Rehabilitation (from home visit) .....	188
e. Physical therapy treatment clinics conducted .....	51
f. Treatments by physical therapist (P. T. clinics and home) .....	592

## Nutrition Section

The Section has been gratified by the increasing demands for nutrition and dietary consultant service from all sections during the past two years. Demands have come from a greater number of local health departments as well as other agencies, institutions, and organizations. The types of assistance requested have been more varied and there has been more success in incorporating nutrition into the generalized public health program. During the past year, 1955, nutrition and dietary service was given in a total of eighty-eight counties. The most common criticism of the service continues to be the small amount of time each month that a nutrition consultant can spend in a county. The attempt to have each nutritionist provide some direct services in ten counties places severe restrictions on the amount and type of work which can be carried on in each county. There are numerous requests for direct service to individuals in the counties but the size of the Nutrition Section staff has made it imperative for each consultant to spend the major portion of her time working with professional persons who are permanently located in the counties and whose work deals primarily with individuals. A number of health officers have requested the full-time assignment of a State Board of Health nutritionist to their counties and many have requested that the nutritionist spend additional days in the county; this, obviously, is impossible. Some of these counties need a full-time nutritionist and the health officers are to be commended for recognizing the contribution a nutritionist could make in improving the health of the people. One county has employed a well qualified public health nutritionist within the past two years. This makes two local health departments in the state having trained nutritionists on the staff.

The nutrition program should, of course, fit into the trend of the total state health program. There is every indication that nutrition is being recognized more and more as a factor of major importance in the degenerative and chronic diseases. The emphasis of the Section's work, however, continues to be toward improving the nutritional status of mothers, infants and children, adults and older age persons, through helping all of these groups to understand the importance of establishing and maintaining dietary practices which meet the nutritional needs of the body. Particular attention is paid to mothers and children since early establishment of sound nutrition practices will contribute to better health throughout life and will help in the prevention of some of the degenerative diseases. Two other groups which receive a priority rating for service are (1) children who are physically handicapped and require careful attention to diet so that their growth will not be impaired nor their handicap increased through poor dietary practices, and (2) families whose limited income often results in the selection of foods of poor nutritional quality. Many of the health problems of this latter group, as well as those in more favorable economic circumstances, may be directly or indirectly traced to a poor diet over a long period of time.

The objectives set up by the Section are indicative of the broad service and long range plans which are being developed:

1. Joint planning, consultation and participation with other members of the staff of the State Board of Health for the nutrition component of each program, such as premature, crippled children, maternal and child health, tuberculosis, mental health, heart, health education, cancer, industrial hygiene, sanitation and others in which nutrition is an integral part.

2. Provision of consultation service to such agencies as local health departments, welfare departments, institutions, and other official agencies desirous of raising the quality of nutrition services.

3. Provision of training (a) to assist other professional workers in raising the quality of education in nutrition and its application throughout the state, and (b) for the inclusion of nutrition in staff education programs of the State Board of Health and for the formal training of nutritionists.

4. Cooperation with other official and voluntary agencies in order to coordinate and promote the nutritional aspects of all health and welfare services.

5. Promotion and participation in studies of nutrition and subjects related to nutrition which will improve the nutritional well-being of the people of the state.

#### ORGANIZATION:

Each nutrition consultant has a district of ten counties with headquarters in her district. This allows more time for work in each county and reduces the amount of time spent in traveling. At the present time, eight of these districts have nutritionists. One district is vacant due to a resignation and there are no funds available at present for the other district.

The permanent headquarters that have been established in health departments in each district are: District I, Martin County; District II, vacant; District III, New Hanover County; District IV, Wake County; District V, Alamance County; District VI, Cumberland County; District VII, Rowan County; District VIII, Surry County; District IX, vacant; District X, Western District office, Buncombe County.

For dietary consultation, the state is divided in half so that one consultant serves the eastern section and one the western area of the state.

Two nutrition field consultants and one dietary consultant resigned during this period.

### Public Health Nutrition Intern:

A new program establishing a Public Health Nutrition Internship was started in August, 1955. A 1955 graduate in Home Economics from Woman's College with a major in foods and nutrition is the first intern. Following one or two years of internship, she (Miss Mary Lee Brown) will be eligible to take graduate work in a school of public health, or in a school offering a major in nutrition for a master's degree. This will qualify her for a position as either a local nutritionist or as a state consultant. It is hoped that the plan can be extended so that there will be at least two nutrition internships running concurrently on a staggered basis with one new intern each year. This appears to be a possible solution for securing adequately trained people in a field where competition is so great because of the small number of qualified personnel. An application for a second internship to begin in the fall of 1956 has already been received.

### ACTIVITIES:

The plan is similar to that offered in previous years: namely, consultation services to local health departments; dietary studies to determine existing food practices; consultation service to other official agencies and community groups; consultation service to state and county institutions and hospitals; cooperation with other agencies, official and voluntary, on joint programs and projects affecting health; participation in in-service training programs for professional workers; demonstration programs and clinic services especially for prenatal, well children, handicapped children, and those with special dietary problems such as diabetes or overweight.

The usual activities, described in earlier reports were carried on through eighty-eight counties in North Carolina. They include the following:

1. <i>Studies</i>	<i>No. of Schools</i>	<i>No. of Children</i>
Dietary Surveys	21	644
2. <i>Nurses</i>	<i>No. Group Conferences</i>	<i>Attendance</i>
(a) Staff education conferences or meetings	159	1706
(b) Conferences with individual nurses about patients presenting special nutrition problems	698	



3. Clinics	No. Group Conferences	Attendance in Group Conferences	Individual Referrals
Orthopedic	51	1412	1954
Well Baby	70	947	1145
Preschool	34	280	357
Prenatal	54	845	1060
Diabetic			65
Overweight			318
Other	7	119	275
4. School Health Program		No. Conferences	Attendance
(a) In-service training meetings for teachers		157	3777
(b) Individual conferences with teachers		892	
5. Other meetings			
Group Conferences		928	4959
Individual Conferences		3529	
6. Hospitals and Institutions		No. of Visits	Hill-Barton State County and Others
(a) Consultation Service		171	56 12 103
(b) Blueprints Reviewed (for remodeling or design- ing new kitchens)		63	
(c) Specifications Reviewed (for remodeled or new kitchens)		18	
7. Exhibits		38	

## HOSPITAL FOOD SERVICE INSTITUTE

The North Carolina Dietetic Association, the North Carolina Hospital Association, and the North Carolina State Board of Health continue to co-sponsor a three (3) day institute for food service managers in small hospitals. The planning committee has voted to continue the Institute as an annual occurrence. Representation of food service managers has been increased and sanitarians (state and county) have been added to the planning committee. In 1955 the Institute was held at the University of North Carolina in Chapel Hill with an attendance of 42 food service managers and hospital administrators; in 1956 it was held at State College in Raleigh with an attendance of 34.

The decreased attendance in 1956 is attributed to the fact that the American Hospital Association Institute on Hospital Administration was held in North Carolina for the first time in March, 1956, and eleven food service managers attended this meeting. This national institute will not be held in the southeast again in the near future.

A dietary consultant of the State Board of Health assumes the main responsibility for these Institutes and acts as chairman of the steering committee composed of representatives of the three sponsoring agencies.

A similar institute for the Correction and Training Schools and the Handicapped Schools is being considered.

### STATE PRISON DEPARTMENT

The dietary consultants assisted in planning a kitchen layout which is to be used in the future remodeling and construction of camp kitchens.

Upon request, a formula for a one-dish meal "monotonous diet" to be used for prisoners in solitary confinement was developed. The American Can Company processed a trial run, established canning procedures and assisted in training prison workers to carry out such procedures. Assistance was given to the prison farm director and Budget Bureau farm analyst with the revision of the food rationing allowances. At the request of the prison physician assistance was given in setting up an ulcer regimen.

### WEIGHT CONTROL

There has been continued interest in weight reduction programs, in several areas of the state, based on the establishment and maintenance of a nutritionally adequate diet. These have resulted in community weight control classes cooperatively planned and executed by members of voluntary agencies and the district nutrition consultant working through the local health department. Men and women were accepted for these classes only upon referral from their physicians. Some weight reduction work with children has been conducted on an individual basis in several counties.

One county health department has continued a weight control clinic, which was started in December, 1953. This clinic is staffed by the district nutritionist and members of the health department. Because of the increased attendance, two clinics per month had to be started in 1954.

### OTHER SPECIAL SERVICES:

Special services which have been provided through cooperation with the various sections of the State Board of Health, other agencies, institutions, and groups include:

- (1) Planning for and supervising food service for the two camps for handicapped children, at Washington and Salisbury.

- (2) Compilation of a food service manual for the Coastal Plains Orthopedic Camp (Washington).

- (3) Participation in the Midwives Institutes held annually in Fayetteville.

- (4) Cooperation with the Crippled Children's Section in the Rheumatic Fever Institutes which were held in the various sections of the state for the nurses.

- (5) Participation in community education projects sponsored by organizations such as Girl Scouts, Salvation Army, Veterans Administration education programs; Y.W.C.A.; P.T.A., etc.

- (6) Assistance with the evaluation of the present formula room facilities at North Carolina Memorial Hospital and with plans for the enlargement of the formula room with the cooperation of the consulting pediatrician.

- (7) Quarterly visits made to five licensed boarding homes for the aged.

(8) A special study made at one mental hospital on bread making facilities.

(9) Assistance given in the preparation of a diet manual for McCain Sanatorium.

(10) Participation in the American Hospital Association Institute on Hospital Administration held in Chapel Hill. The dietary consultant also presented a paper at the Institute which is soon to be published.

(11) Participation in a diabetes and nutrition, tuberculosis, and venereal disease survey in the Cherokee Reservation. The entire activity will be summarized at a later date.

(12) Planning and supervision of public health experience for dietetic interns from Charlotte Memorial Hospital.

(13) Obtaining food prices in each district in January and July which are averaged to give a state-wide picture of current food prices on items considered important in maintaining an adequate diet. This information welfare departments in planning diets for persons with limited income. welfare departments n planning diets for persons with limited incomes.

(14) Preparation of a leaflet entitled "Food for You." This leaflet was published by the North Carolina Tuberculosis Association and approved by the North Carolina sanatoria. See attached copy.

(15) Cooperation with the local welfare departments in conducting group meetings on nutrition and food service for mothers receiving Aid to Dependent Children funds.

(16) Participation as consultant and lecturer in certain courses at the North Carolina College; University of North Carolina School of Public Health; and Duke University School of Nursing and the Duke Hospital School of Dietetics.

(17) Participation in the week's training program for mothers of blind children entering the State School for the Blind in Raleigh.

(18) Participation in school-lunch workshops when requested.

(19) Participation in the Institutes on Tuberculosis at the state sanatoria.

(20) Participatoin in the Polio Institutes held in Greenville and Asheville.

(21) Participation in the Rural Health Conferences in Greenville and Asheville.

(22) Participation in the Premature Institutes sponsored by the State Board of Health.

(23) Participation in the workshops for Day Care Operators, sponsored by State Board of Public Welfare.

(24) Planning for a Nutrition Workshop which will be held in Raleigh September 10-18, 1956. This Workshop will include representative nutritionists and dietitians from the southeastern states.

## CONCLUSION:

As it becomes increasingly recognized that good nutrition is essential for good health, the role of nutrition in almost every phase of health work assumes major importance. North Carolina has been responsible for much of the pioneering effort in establishing and interpreting nutrition in public health and it is anticipated that the nutritionist will be of even greater

service on the public health team as we learn more of the chronic and degenerative diseases. The program, of course, can only grow and progress within the limitations of staff and funds available.

### **Cancer Section**

The Cancer Control Program continued to function as in the past, primarily as a case-finding procedure and secondarily as a treatment program. Two new detection centers were started during the biennium. No clinics were discontinued. The appropriation for treatment and diagnosis, as in the past has been progressively less adequate. During the first year of the biennium the treatment and diagnosis programs were closed February 1, 1955, reopened April 15 and closed again on June 6, 1955 for lack of funds. In 1956 the treatment and diagnosis programs were closed January 31 and remained closed through June 30 for lack of funds.

Because of the dissatisfaction of the private physicians with the operation of the State Board of Health's Cancer Program and in certain respects with the operation of the North Carolina Division of the American Cancer Society a survey of the whole situation was made by representatives of the American Cancer Society. Many recommendations were made. One of the most important of which was the creation of a Coordinating Committee. This committee is made up of three members of the cancer committee of the State Medical Society, three representatives of the North Carolina Division of the American Cancer Society and three representatives of public health. This procedure should remove most of the opposition to the program and make the clinics run much more smoothly.

The following is a list of the thirteen clinics now in operation:

### **Detection & Diagnostic Centers**

Buncombe County Cancer Center, Memorial Mission Hospital, Asheville; Durham-Orange Counties Cancer Center, Watts Hospital, Durham; Edgecombe-Nash Counties Cancer Center, City Health Department, Rocky Mount; Guilford County Cancer Center, Health Department, Greensboro; New Hanover County Cancer Center, James Walker Memorial Hospital, Wilmington; Rutherford-Polk District Cancer Center, Rutherford Hospital, Rutherfordton.

### **Detection Centers, Only**

Alamance-Caswell Counties Cancer Center, Health Department, Burlington; Cleveland County Cancer Center, Health Department, Shelby; Jackson-Swain Counties Cancer Center, C. J. Harris Community Hospital, Sylva; Lincoln Hospital Cancer Center, Lincoln Hospital, Durham; North-eastern Carolina Cancer Center, Health Department, Elizabeth City; Wake County Cancer Center, Rex Hospital, Raleigh; Wilkes-Alleghany Counties Cancer Center, Doctor's Building, North Wilkesboro.

In addition to the five-point detection examination, twelve of the thirteen Detection Centers do a Papanicolaou smear routinely on all female ex-

aminees. During the biennium the cytologists with the State Board of Health Laboratory of hygiene read a total of 24,731 Papanicolaou smears. Of this number 305 were reported as positive and 228 as suspicious.

During the two year period 22,008 detection examinations were made in the Cancer Centers. Of this number 3,485 were referred to Diagnostic clinics for further examination. Another 12,101 were referred directly to their personal physicians. As all examinees seen in Diagnostic Centers are ultimately referred to their physicians, a total of 15,586 persons were referred to practicing physicians from the clinics. A total of 1,420 biopsies and 351 diagnostic x-rays were made in the Centers. Recommendations of clinic staffs included suggestions that an additional 200 biopsies be made, 230 D&C's be performed, 658 other surgical procedures be done, and that 85 diagnostic x-rays be made. X-ray therapy was recommended in 51 cases.

During this biennium, the clinics microscopically diagnosed 396 cancers and 573 as suspicious (referred to family physicians or hospitalized for further study).

The Gastric Cancer Mobile Unit continued its program in connection with the State Hospitals at Butner, Dix Hill, Goldsboro and Morganton. All of the four hospitals were visited twice during the biennium and approximately 8,000 x-ray studies were made of the stomach and esophagus on this unit.

The hospitalization programs for the diagnosis of possible cancer and the treatment of medically indigent cancer patients were continued. From July 1, 1954 through June 30, 1956, 891 medically indigent persons were admitted for hospitalization (not to exceed 3 days) for the diagnosis of possible cancer. Three hundred and eighty-nine were diagnosed as cancer. This program was supported by Federal funds at a cost of \$43,590.49. All payments under this program are made directly to hospitals for in-patient care, and no fees are provided for either physicians or out-patient hospital care.

During this same period we sponsored 794 admissions to hospitals for treatment of medically indigent cancer cases. This program which is supported by State funds cost a total of \$172,107.89. Token fees are provided for physicians under the treatment program.

Participating in these hospitalization programs to date are 60 hospitals and 162 private practicing physicians throughout the State.

### Heart Section

The Heart Section gave a three day refresher course at Bowman Gray Medical College in October, 1954 to 28 general practitioners; in June, 1955 to 34 general practitioners, and again in June, 1956 to 29 general practitioners. It gave a primer course in electrocardiography in June, 1955 and June, 1956 to a total of 78 general practitioners; also an advance course in electrocardiography was given in January, 1955 and January, 1956 to a total of 81 general practitioners. An EKG machine was furnished the Pitt County Rheumatic Fever Clinic in the month of March, 1956. The Heart Bulletin was subscribed to for 824 white and colored physicians

(those who requested it). Leaflets and sound films on heart conditions were supplied on request. The Heart Section gave a two day refresher course in rheumatic fever and rheumatic fever heart disease control for local health officers at Chapel Hill in June of 1956. Supervising nurses of counties in which rheumatic fever clinics are located and state nurse consultants also attended this course.

In an effort to put patients whose tuberculosis screening x-rays indicated possible heart or blood vessel disease in touch with their physicians, the following form letters were mailed out:

Number of letters sent out to physicians .....	2,314
Number of letters sent out to patients .....	2,314
Number of patients who have seen their physician .....	1,604
Number of patients who have <i>not</i> seen their physician .....	710
Number of letters to patients that were returned marked unknown or unclaimed at address .....	32
Number of letters to patients asking name of their physician no response .....	70
Number of patients who died before letter reached them .....	8
Number of final reports made to County Health Officers of the work done in their counties .....	25

## Summary

Beyond the normal routine performance of the division, there were some entirely new or non-routine activities.

**Maternal and Child Health.** 1. Securing the services of a full time, excellently trained obstetrical consultant.

2. Our inability to employ any one of four well trained and experienced pediatricians as a consultant. The reason for this is inadequate salaries.

3. The conduct of a special study in fetal and neonatal mortality at the three medical school hospitals.

4. The routine reporting to all hospitals doing any appreciable amount of obstetrics the stillbirths, live births and neonatal deaths in each hospital.

**Crippled Children.** 1. The expansion of the rheumatic fever clinic service to two non-medical school hospitals, one in the east and one in the west.

2. Completion of plans and providing of special equipment for the activation of a speech and hearing defect program at Duke, and the completion of plans for the operation of a hearing defect program at North Carolina Memorial Hospital.

**Cancer.** By invitation, the American Cancer Society made a rather exhaustive study of the activities of the State Board of Health, the North Carolina Division of the American Cancer Society and the Cancer Committee of the State Medical Society, as far as the activities of these organizations in the field of cancer control are concerned. One of the most important recommendations following this study has already been put into operation. That was the appointment of a coordinating committee consisting of three representatives of the Cancer Committee of the State Medical Society, three representatives of the North Carolina Division of the American Cancer Society, and three representatives of public health. This commit-

tee's chief concern is to help coordinate and direct the activities of all three groups.

**Heart.** This section sponsored and supported a two-day symposium on rheumatic fever and rheumatic fever heart disease for county health officers, public health nurse consultants and a limited number of nurse supervisors.

**Nutrition.** This section's most outstanding feature was the ever-increasing request for consultation and services from the local departments.

The ninth of the originally planned ten districts was budgeted and a nutritionist employed.

A new feature was budgeting and securing a nutrition intern. Plans have been completed for this intern to enter formal graduate training in nutrition.

Toward the end of the biennium, the section was signally honored and at the same time sorely handicapped by the Nutrition Section of the Division of Indian Health, U. S. Public Health Service, employing the section's chief on a year's leave of absence basis.

## LOCAL HEALTH DIVISION

A reasonably satisfactory public health program has been supplied to the people of every county in North Carolina during the last biennium. Failure to execute a more satisfactory program has been occasioned by the inability to keep all local health departments staffed with well trained and experienced personnel. The reduction in Federal General Health allotment in North Carolina has markedly reduced the ability of this division to engage in a much needed training program. An effective public health program depends largely upon the ability of the personnel in the local health departments to carry out in a scientific manner the specific duties required of them. Inability to supply post-graduate public health training to prospective employees has seriously militated against a successful recruiting program. There is urgent need, in the interest of efficient service, for the State Board of Health to be supplied with a definite amount of training funds with which a constructive training and recruitment program can be inaugurated and maintained. There continues to be too large a turnover in local health personnel. Approximately 34% of the total local health personnel resigned during the past biennium for various reasons. In the health officer group there were seven resignations and two deaths during the biennium. Ten new health officers, most of whom are well qualified, were employed during this period.

Due to the splendid cooperation of the Medical Care Commission and the local appropriating bodies the program of constructing modern up-to-date health centers for housing the personnel of the local health departments has been persistently and continuously executed. During the biennium twenty-two new health centers were completed and occupied and sixteen additional counties have made provision for health centers, some of which are almost completed, under the provision of the Hill-Burton Act. At the end of the biennial period fifty-seven new Hill-Burton Health Centers had been completed and occupied by personnel of the local health departments and sixteen were being processed. The City of Charlotte has passed a bond issue for a half-million dollars in order to provide adequate quarters for the health department personnel. In addition to the above, thirteen other departments are housed in reasonably adequate quarters. Seven of these were built during World War II under the provision of the Lanham Act and six were provided entirely by the use of local funds. Consequently there remain only seventeen counties in which the personnel of the health departments are presently housed in inadequate or undesirable quarters. Continuous efforts are being made to interest the local authorities of these counties to take advantage of the opportunities offered by the Hill-Burton program to obtain better housing for their health departments. It is the firm conviction of the Director of this Division that modern up-to-date working quarters for local health department personnel will markedly increase the prestige of local health service, raise the morale of local health personnel, materially stabilize local health service, and aid considerably in the recruitment program for local health personnel.



During the biennium the health departments of the City of Asheville and Buncombe County were consolidated to form a solid unit. It is felt that the quality of service to the people of this area has been markedly improved by this move. As a consequence of this action there are only two city health departments remaining in the state, Rocky Mount and Charlotte. It is sincerely hoped that in the not distant future there will be a consolidation of the health departments of Charlotte and Mecklenburg County.

The general functions of the Local Health Division may be briefly summarized as follows:

(1) Administration

(a) The Division is expected to formulate, in cooperation with other Divisions of the State Board of Health and representatives of local health departments, the general policies to be followed routinely in execution of this cooperative state-wide health program.

(b) Perfect and execute a plan of equitable distribution of state and federal funds to the respective local health departments. A general formula for the allocation of funds to counties has been developed and was strictly adhered to during the biennium. Results achieved by the use of this formula during the period have been almost universally satisfactory.

(c) Assist the local health departments with the preparation of and give final approval to budgets to be used in utilizing the allotted and local funds for the operation of the local health departments so that the use of funds allotted to counties will be in accordance with state and federal laws and regulations.

(d) Recruit and supervise training of personnel in various categories for use in local health departments.

(e) In cooperation with the North Carolina Medical Care Commission, assist the local authorities in the procurement of better housing for the personnel of the health departments in the form of modern health centers.

(2) Consultation

(a) It is the responsibility of this Division to supply with the aid of other Divisions of the State Board of Health technical consultation on various types of activities carried on by local health departments such as medical administrative guidance, public health nursing, public health education, mental health, laboratory techniques, venereal disease control, epidemiology, tuberculosis control, oral hygiene, maternal and child health, school health, record keeping and clerical work. The cooperation supplied this Division by the Directors of other Divisions has been exemplary and a source of keen appreciation by the personnel of this Division.

At the end of the biennium there were sixty-nine full time health departments in North Carolina, forty-four of which were county health departments, twenty-three were district health departments, and two were city health departments. These local health departments at the end of the biennium had in their employ 1,181 full time workers. Of this number, 78 were medical officers, 508 were nurses, 237 were sanitarians, engineers

and veterinarians. The remaining personnel consisted of clerks, technicians, bacteriologists, mental health personnel, et cetera.

The cooperation given this Division by the county commissioners and city appropriating agencies has been phenomenal during the past biennium. Local financial contributions to the support of the local health programs for the fiscal year ending June 30, 1956 exceeded those of the fiscal year ending June 30, 1954 by \$714,872.39. These figures indicate very clearly that the people of North Carolina are willing and ready to support financially a sane, sensible and constructive public health program.

There follow detail reports of the Sections of Local Health Division.

**ADMINISTRATIVE SECTION**—The Administrative Section for each year of the biennium continued to allocate to the local health departments the same amount of state funds; namely, \$1,132,000. Federal funds, including mental health and special grants, available to local health service for the fiscal year 1954-55 were \$295,800, and for the fiscal year 1955-56 \$280,378. This represents a decrease of \$297,049, or 34% from the previous biennium. For the fiscal year 1954-55 local funds were \$4,195,463, and for 1955-56, \$4,587,874. This represents an increase of \$1,401,788, or 19% over the amount for the previous biennium.

At the close of the biennium there were budgeted in the 100 counties and the two city health departments a total of 1230 full time positions. Of this number, 67 were health officers, 11 assistant health officers, and 4 dentists. There were 25 supervising public health nurses, 483 staff nurses, 237 sanitarians, engineers and veterinarians, 7 public health investigators, and 14 health educators. The remaining personnel consisted of 382 clerks, bacteriologists, technicians, mental health personnel, maids, etc. In addition there were nurses and health educators employed and paid from school health funds. There were 49 budgeted positions unfilled because of unavailable funds and untrained personnel.

The following pages show pertinent data sheets for the two fiscal years.

**TRAINING**—The State Board of Health has long devoted considerable effort and funds to training purposes. However, budgetary limitations have prevented the expansion of training programs for the past several years. The major undertaking, so far as training for health officers is concerned, has been the development of the residency program in public health and preventive medicine. In recognition of the fact that success of a public health program is dependent to a large extent upon the availability and employment of competent and professionally trained personnel, the State Board of Health during the biennium made possible, despite shortage of funds, training for 253 public health workers, as follows:

- 1 health officer completed one year of training on scholarship
- 2 health officers were given one semester each at the University of North Carolina
- 1 health officer was given orientation in a local health department
- 7 public health nurses, 1 hospital nurse, 1 psychiatric social worker, 1 health educator, were given scholarships for one year of training
- 15 public health nurses were given extension courses
- 41 public health nurses were given scholarships covering Principles and

Practices of Public Health and the Public Health Nurse in a Maternal Health Program

15 nurses were given scholarships covering Workshop Supervision

1 nurse given scholarship for Child Growth and Development and Sociology

Short courses were financed and given as follows:

Short courses were financed and given as follows:

51 public health nurses—Home Accident and Prevention

20 public health nurses—Cancer Control

23 public health nurses—Tuberculosis Control

20 public health nurses—Cancer Control

8 public health nurses—Geriatrics

19 Sanitarians—12 weeks training course

24 Clerks given training in Records Short Course

4 Lab Workers given short courses

1 Nutritionist given one year of intenship in local health department

In addition to the above training, expenses were paid to enable many public health workers to attend institutes, seminars, workshops and symposiums.

**RECORD ANALYSTS**—In the 1954-56 period, the main work of the record analysts continued to be that of stimulating and encouraging better records and reports. Appreciation of this phase of work is not as easy to see as some other but one bit of evidence is apparent in some of the new health center buildings where well planned space has been provided for the records person to work.

As has been noted previously, the evaluation type of report was first used in North Carolina in 1950. In 1955, the local health departments were given a report of eight indices compiled from their annual reports. This report, *North Carolina Health Indices*, was prepared in cooperation with the Public Health Statistics Section and is composed of tables and graphs. It was hoped this would answer in some ways a question frequently asked by local health department staffs, "How do the activities of my department compare with those of my neighbors"?

Membership on the Committee on Nursing Records at the State Board of Health has been an indirect method of improving records and recording in local health departments.

The sixth and seventh Public Health Records Short Course were held in 1955 and 1956. These two weeks' courses are believed to have made a definite contribution to the public health program. Prior to 1951, no training for the clerical workers had been provided. Ninety-nine girls have attended. Of this number, thirty have resigned from public health.

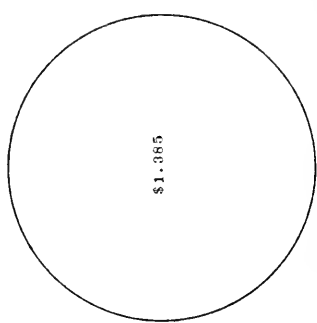
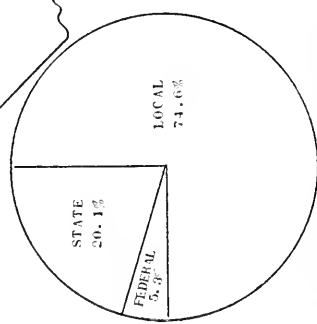
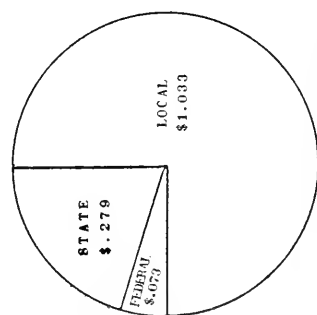
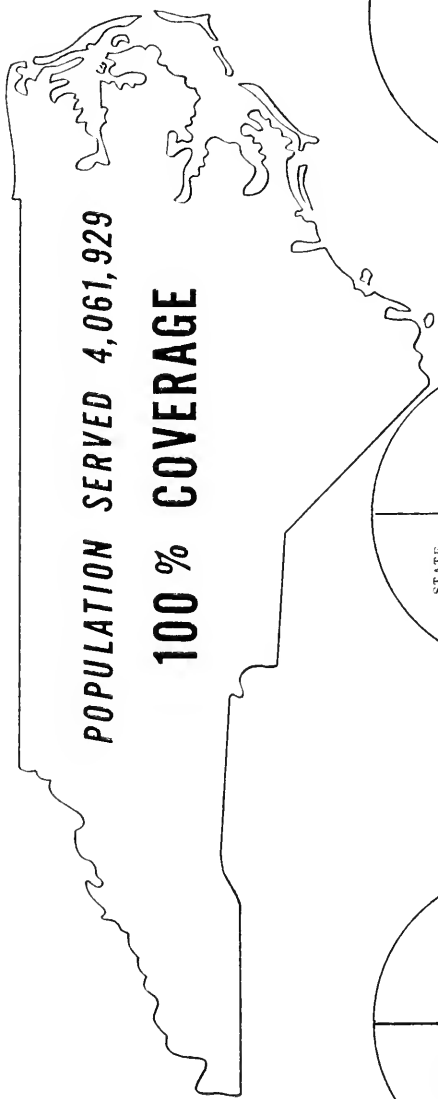
**FILM LIBRARY**—The Film Library continued to make progress in its activities during this report period. As compared to the previous Biennial Report, dated July 19, 1954, the present film distribution and correspondence received this report period shows considerable increase. The films purchased and funds expended, however, shows a tremendous decrease.

# NORTH CAROLINA LOCAL HEALTH SERVICE BUDGET

FISCAL YEAR 1954 - 55

NUMBER 1

TOTAL STATE FUNDS	\$1,132,000.00
TOTAL FEDERAL FUNDS	\$295,800.00
TOTAL LOCAL FUNDS	\$4,195,463.32
TOTAL BUDGET LOCAL HEALTH	\$5,623,263.32



COST PER CAPITA      SOURCE OF FUNDS      COST PER CAPITA ALL FUNDS

Thousands \$

**SOURCE OF FUNDS FOR LOCAL HEALTH DEPARTMENTS IN NORTH CAROLINA**

**1933-1955**

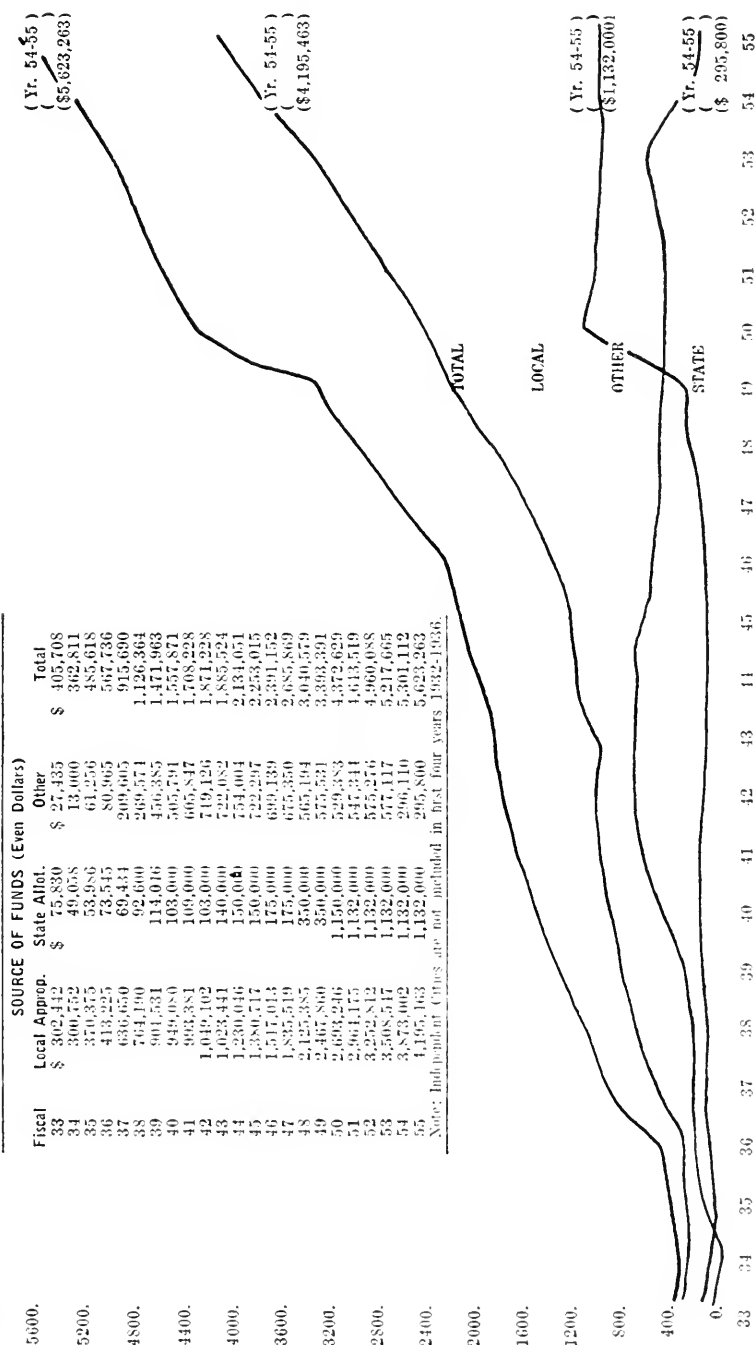


TABLE NO. 1—DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES—FISCAL YEAR 1954-55

County, City or District	1950 Popula- tion	Date Organized	Total Budget		Source of Funds and Amounts				Full Time Personnel							
			\$	Per Cap.	State Allotment	Per Cap.	Local Appropriation	Per Cap.	Other Agencies	H. O.	M. H.	P. N.	Sant.	Clerks and Others	Dent. Wks. Old Sched.*	
Alamance.....	71,220	1938	\$ 91,802.10	1.290	\$ 15,499	.218	\$ 73,595.10	1.033	\$ 2,768	.039	1	..	..	4	4ed	10*
Allegany-Ashe-Watauga...	48,375	1938-35	44,951.44	.929	18,787	.388	23,204.44	.480	2,960	.061	1	..	..	3	3	20*
Alleghany.....	8,155	1938	9,145.00	1.121	4,496	.551	4,200.00	.515	449	.055	..	..	..	1	1	0
Ashe.....	21,878	1938	17,001.00	.777	7,586	.347	8,000.00	.365	1,415	.065	..	..	..	1	1	10*
Watauga.....	19,282	1935	19,281.00	1.051	6,705	.365	11,480.00	.626	1,096	.060	..	..	..	1	1	10*
Ansley.....	26,781	1937	31,565.05	1.179	8,887	.332	20,972.05	.783	1,766	.064	..	..	..	3	1	20*
Avery-Mitchell-Yancey....	44,801	1935-44-35	34,769.59	.776	18,490	.413	13,706.59	.366	2,573	.057	1	..	..	1	3	20*
Avery.....	13,352	1935	9,863.00	.738	5,785	.433	3,300.00	.247	778	.058	..	..	..	1	1	10*
Mitchell.....	15,143	1944	11,514.00	.760	6,169	.407	4,500.00	.297	845	.056	..	..	..	1	1	10*
Yancey.....	16,306	1935	12,286.00	.753	6,536	.401	4,800.00	.294	950	.058	..	..	..	2	2	10*
Beaufort.....	37,134	1923	49,016.00	1.320	10,809	.291	35,651.00	.960	2,556	.069	1	..	..	2	1	20*
Bertie.....	26,439	1934	26,417.28	.999	8,989	.340	15,607.28	.530	1,821	.069	1	..	..	1	1	20*
Bladen.....	29,703	1921	27,769.09	.935	9,876	.333	15,806.09	.532	2,087	.070	..	..	..	2	1	10*
Braswell.....	19,238	1949	15,574.79	.810	7,415	.386	6,807.79	.354	1,352	.070	..	..	..	2	1	10*
Buncombe.....	124,403	1913	275,398.00	2.214	27,298*		232,630.00	1.870	15,470	.124	1	1	6 17s	111	13b.t.ed.	20
Burke.....	45,418	1937	45,420.39	.998	11,807	.259	31,535.39	.693	2,078	.046	1	..	..	3	1	20*
Catawba.....	63,783	1919	98,170.00	1.539	17,058*	.267	78,461.00	1.230	2,651	.042	1	..	..	18	4	20*
Caldwell.....	43,352	1937	40,979.00	.945	11,538	.266	27,257.00	.629	2,184	.050	1	..	..	2	1	2ed.
Carteret.....	23,059	1941	26,005.14	1.128	7,649	.332	17,219.14	.747	1,137	.049	..	..	..	3	1	20
Catawba-Lenoir-Alex.....	103,807	1938-40-47	127,839.81	1.231	29,095	.280	93,924.81	.905	4,820	.046	1	..	..	10s	8 6b	40
Catawba.....	61,794	1938	57,090.00	.924	14,467	.234	40,092.00	.648	2,597	.042	..	..	..	4	4	20
Lincoln.....	27,459	1940	31,897.00	1.162	8,501	.310	22,012.00	.802	1,384	.050	..	..	..	3	1	10
Alexander.....	14,554	1937	15,861.00	1.090	6,127	.421	8,895.00	.611	839	.058	..	..	..	2	1	10
Cherokee-Clay-Graham....	31,186	1937	39,902.23	1.279	15,725	.504	20,813.23	.667	3,364	.108	..	..	..	4	2	20
Cherokee.....	18,294	1937	22,404.00	1.224	7,005	.383	14,275.00	.780	1,124	.061	..	..	..	2	1	10
Clay.....	6,006	1937	6,064.00	1.008	4,186	.697	1,500.00	.250	368	.061	..	..	..	1	1	0
Graham.....	6,886	1936	8,006.00	1.163	4,524	.659	3,100.00	.450	372	.054	..	..	..	1	1	10
Cleveland.....	64,357	1938	57,536.00	.894	15,668	.243	38,969.00	.605	2,969	.046	1	..	..	5	3 3b	20
Columbus.....	50,621	1921	44,991.00	.889	14,162	.280	27,559.00	.544	3,270	.065	1	..	..	4	2	20
Craven.....	48,823	1921	61,919.00	1.268	11,895	.243	47,300.00	.969	2,724	.056	1	..	..	5s	2 4b	10*
Cumberland.....	96,006	1919	98,441.19	1.025	22,103*	.230	71,657.19	.746	4,681	.049	1	..	..	8s	5i	20
Cumtuck-Dare.....	11,606	1938-37	25,143.39	2.166	8,427	.726	16,497.39	1.387	619	.053	1	..	..	2	1	10*
Cumtuck.....	6,201	1938	12,271.00	1.979	4,434	.715	7,500.00	1.210	337	.054	..	..	..	1	1	0
Dare.....	5,405	1937	11,775.00	2.179	3,993	.739	7,500.00	1.388	989	.052	..	..	..	3	3b	0
Davidson.....	62,244	1917	59,900.00	.962	14,402	.231	42,766.00	.687	2,788	.044	1	..	..	6	1	20*
Davidson-Yadkin.....	37,553	1938-31	38,468.19	1.024	13,340	.355	23,394.19	.623	1,732	.046	..	..	..	4	2	10*
Davie.....	15,420	1938	14,720.00	.955	5,949	.386	8,070.00	.523	701	.046	..	..	..	2	1	10*

22,133	1931	17,272.00	7,391	334	8,550.00	400	1,031	.946	..	..	..	2	..	..	1	10*
41,074	1934	47,548.00	1,358	300	32,227.00	785	2,995	.973	..	..	..	5	..	..	2	20*
101,639	1913	247,709.03	2,437	22,533*	209,106.63	2,657	16,020	.158	1	1	5	17s.es.	11i	12b	20	20
38,732	1919	63,409.53	1,638	10,155	51,063.53	1,319	9,191	.957	1	..	5	..	9i	4	20	20
146,135	1913	275,391.52	1,885	31,072*	228,562.52	1,564	15,757	.108	1	..	5	28s	13w.i.	15d.ed.b.	20*	20*
31,341	1930	43,971.84	1,116	8,045	23,097.84	.737	2,069	.061	1	..	..	11th.s.	9	12ed.t.	20*	20*
110,836	1928	184,771.00	1,637	25,695*	154,960.00	1,332	2,735	.063	1	..	..	4	21	2ed.	20*	20*
31,733	1919	46,312.36	1,357	1,192*	33,516.36	1,043	2,914	.063	1	..	..	2	..	17b.ed.n.	20*	20*
18,024	1937	233,686.00	1,778	7,255	21,078.00	1,169	1,169	.065	..	..	..	6	28s.es.	12v	20*	20*
191,067	1911	339,686.00	1,778	36,891*	283,387.00	1,483	19,408	.102	1	..	9	..	3	5b	20	20
58,377	1919	93,665.68	1,605	17,152*	12,610.68	1,244	3,903	.067	1	..	58	..	1	2	20	20
47,605	1936	47,950.00	1,007	12,879	32,322.00	.683	2,549	.063	1	..	3	..	2	3b	20*	20*
37,631	1934	46,571.00	1,238	10,324	34,631.00	.920	1,616	.043	1	..	..	3	2	2	20	20
46,115	1947-37	39,132.33	.848	14,813	22,144.33	.480	2,175	.047	..	..	..	3	2	2	20	20
30,921	1947	22,619.00	.732	8,737	12,400.00	.401	1,482	.048	..	..	..	2	1	1	10	10
15,194	1937	12,963.00	.854	6,076	6,200.00	.408	693	.046	..	..	..	4	1	1	10*	10*
31,008	1936-40	38,706.18	1,248	12,933	23,571.18	.765	2,055	.066	1	..	..	4	1	1	2	20*
21,453	1936	20,652.97	.963	7,614	11,686.97	.545	1,352	.063	..	..	..	2	1	1	10*	10*
9,555	1940	11,890.48	1,245	5,319	5,868.48	.614	703	.074	..	..	..	..	..	..	1	10*
15,756	1943	21,297.00	1,352	6,525	13,597.00	.803	1,175	.075	..	..	..	3	1	1	10*	10*
6,479	1937	10,440.40	1,612	4,236	5,785.40	.893	419	.065	..	..	..	5	2	..	20*	20*
56,303	1942	44,411.14	.789	13,817	27,807.14	.495	2,727	.049	1	..	..	4	3	3	30*	30*
45,356	1934-36-34	55,093.33	1,215	18,388	26,011.33	.574	10,694	.236	..	..	..	..	..	..	20*	20*
19,261	1934	16,441.00	.854	6,875	8,450.00	.439	1,116	.058	..	..	..	2	1	1	10*	10*
16,174	1936	15,590.00	.964	6,397	8,216.00	.508	977	.060	..	..	..	1	1	1	10*	10*
9,921	1934	12,525.00	1,263	5,116	6,808.00	.686	601	.061	..	..	..	1	1	1	10*	10*
65,906	1937	46,850.27	.711	16,835	26,059.27	.395	3,956	.060	1	..	..	6	2	1	20	20
11,004	1949	13,229.70	1,202	5,582	6,891.70	.626	756	.069	..	..	..	4	2	2	10*	10*
45,953	1917	50,251.62	1,093	12,561	34,838.62	.758	2,852	.062	1	..	..	4	2	2	10*	10*
25,720	McDowell	28,405.00	1,104	8,134	19,134.00	.744	1,137	.044	1	..	..	2	1	1	20*	20*
20,922	Madison	20,629.00	1,005	7,348	12,056.00	.588	1,216	.059	..	..	..	..	..	..	1	20*
27,938	1937	36,410.95	1,303	9,552	24,972.95	.894	1,886	.067	1	..	..	3	1	1	20	20
63,010	Martin	121,563.00	1,929	11,654	106,957.00	1,698	2,912	.046	..	..	..	14s	7	4d.	20	20
17,960	Mocklenburg (Ex. C.)	19,677.09	1,140	6,671	12,100.09	.701	906	.052	..	..	..	1	1	1	10	10
33,129	Montgomery	23,470.00	1,010	9,885	21,979.00	.683	1,606	.049	1	..	..	3	1	1	20*	20*
45,134	Nash (Ex. R.M.)	44,837.00	.993	11,736	30,526.00	.676	2,575	.057	1	..	..	4	2	2	20*	20*
63,272	New Hanover	122,821.13	1,941	15,422	104,018.13	1,644	3,381	.053	1	..	..	12s	5	10b.t.	20*	20*

TABLE NO. 1—(Continued)

County, City or District	1950 Popula- tion	Date Organized	Total Budget		Source of Funds and Amounts					Full Time Personnel							Deat. Wks. Old Sched. *
			Amount	Per Cap.	State Allotment	Per Cap.	Local Appropriation	Per Cap.	Other Agencies	Per Cap.	H. O.	M. M.	P. N.	Sant.	Clerks and others		
28,432	1917	33,532.24	1.179	9,500	33.4	22,073.24	776	1,959	.069	1	..	3	1	1	20*		
107,710	1941	38,335.62	9.12	9,898	235	26,432.62	629	1,995	.048	1	..	4	1	2	10*		
Orange-Person-Chat.-Lee...	1935-37-46	145,103.60	1.347	42,796*	397	86,945.60	807	15,362	.143	1	1	15s	5	84ed.	40		
Orange...	1935	27,981.00	8.13	8,607	250	18,000.00	523	1,374	.040	..	..	7	2	3	10		
Person...	1937	23,622.00	970	8,230	338	14,000.00	575	1,392	.057	..	..	3	1	1	10		
Chatham...	1937	23,682.00	893	8,234	324	14,000.00	552	1,448	.057	..	..	2	1	1	10		
Lee...	1946	20,993.00	892	7,725	328	12,000.00	510	1,268	.054	..	..	2	1	1	10		
Panther...	9,993	20,993.00	892	5,076	508	6,573.00	658	655	.065	..	..	1	1	1	0		
East-Perq-Cam-Clowan...	51,712	70,084.61	1,355	22,723	439	44,303.61	857	3,658	.059	1	..	6	2	7t	40*		
Pasquotank...	24,347	1942	27,623.19	1,135	7,578	311	18,747.19	770	1,299	.054	..	3	..	4	10*		
Perquimans...	9,602	1943	13,194.54	1,374	5,489	540	7,393.54	770	612	.064	..	1	..	1	10*		
Camden...	5,223	1943	8,635.71	1,654	4,297	823	4,021.71	770	830	.066	..	1	..	1	10*		
Clowan...	12,540	1937	16,144.80	1,287	5,659	351	9,655.80	770	1,323	.072	..	2	1	..	10*		
Pender...	18,423	1941	26,334.08	1,429	7,301	396	17,710.08	361	1,293	.060	1	..	8s	4	4	10	
Pitt...	63,789	1917	83,475.00	1,369	15,966	250	63,721.00	399	3,788	.060	..	48	2	3ed.	20		
Randolph...	50,804	1927	51,874.83	1,021	12,398	244	37,283.83	734	2,193	.093	1	..	3	2	2	10	
Richmond...	39,597	1924	45,029.00	1,137	11,006	278	31,965.00	807	2,058	.052	1	..	6s	3	4ed.	20	
Robeson...	87,769	1912	75,322.00	858	21,878	219	47,172.00	537	6,272	.072	1	..	8s	4	4	20*	
Rockingham-Caswell...	85,686	1940-44	92,957.74	1,085	22,961	268	65,616.74	766	4,380	.051	1	..	6	3	3	20*	
Rockingham...	64,816	1940	71,200.00	1,098	15,253	235	52,904.00	816	3,043	.047	..	..	6	3	3	20*	
Caswell...	20,870	1944	20,541.00	.984	7,708	369	11,496.00	351	1,337	.064	..	..	2	1	1	10*	
Rowan...	75,410	1918	87,331.73	1,158	18,183*	241	65,991.73	875	3,157	.042	1	..	3	3	4ed.	20	
Rutherford-Polk...	47,983	1924-38	47,666.18	.822	16,273	281	28,644.18	494	2,749	.047	1	..	3	1	2	30*	
Rutherford...	46,356	1924	31,868.00	.687	11,172	241	18,498.00	399	2,198	.047	..	..	3	1	2	10*	
Polk...	11,627	1938	10,434.00	.897	5,101	439	4,782.00	411	551	.047	..	..	5	2	2	0	
Sampson...	49,780	1913	51,935.78	1,043	13,474	271	35,018.78	703	3,443	.069	1	..	5	2	1	20	
Scotland...	26,336	1943	40,428.00	1,535	9,130	347	29,398.00	1,116	1,900	.072	1	..	4	1	1	10*	
Stanly...	37,130	1937	32,999.41	.889	10,190	274	21,188.41	571	1,621	.044	1	..	2	1	1	10*	
Stokes...	21,520	1931	18,790.23	.873	7,290	339	10,472.23	486	1,028	.048	1	..	3	2	3	10	
Stokes...	45,593	1919	58,560.64	1,284	12,013	263	44,390.64	974	2,157	.047	1	..	2	1	1	10*	
Surry...	18,228	1937	25,738.20	1,412	9,977	547	14,550.20	798	1,211	.067	..	..	2	1	1	0	
Tyrell-Washington...	5,048	1937	7,867.00	1,558	4,034	479	3,472.00	688	361	.071	..	..	1	..	..	0	
Tyrell...	13,180	1937	16,089.94	1,221	5,943	451	9,296.94	765	850	.065	1	..	2	1	1	10*	
Washington...	42,634	1938	33,570.83	.799	11,648	277	19,588.83	466	2,334	.056	1	..	1	..	2	20	
Vance...	32,101	1920	23,346.00	.727	9,505	296	11,895.00	370	1,946	.061	1	..	2	1	1	10*	



Wake.....	136,450	1918	172,731.92	1,296	26,398	.193	130,337.92	.955	16,086	.118	1	..	..	168	6	7b.d.	20
Warren.....	23,529	1915	20,423.81	.868	8,150	.346	10,439.81	.111	1,834	.078	..	..	..	2	3	1	0
Wayne.....	61,267	1920	89,726.00	1,396	15,965	.248	69,965.00	1.089	3,796	.059	1	1	..	78	3	61	10*
Wilkes.....	15,243	1920	31,233.48	.693	11,815	.261	16,898.18	.371	2,618	.058	1	..	..	2	1	1	0
Wilson.....	51,506	1916	52,310.00	.960	11,096	.259	34,900.00	.610	3,311	.061	..	..	..	6	1	2	20*
Total (Counties).....	3,900,190		5,927,962.71	1,289	1,087,810	.279	3,662,801.71	.939	277,351	.071	56	5	22	429	265	261	1310
Charlotte.....	134,012	1918	511,745.61	3,818	27,389*	.291	467,949.61	3.191	16,107	.123	1	2	3	414s, 211y	211y	211y	20
Rocky Mount.....	27,697		71,516.00	2,690	7,762	.280	61,712.00	2.336	2,012	.071	1	..	..	5	2	4b.	20*
Total (Cities).....	161,739		586,261.61	3,625	35,151	.217	532,661.61	3.291	18,119	.114	2	2	3	46	26	28	40
Combined Total.....	1,061,929		5,614,224.32	1,382	1,122,961	.276	4,195,463.32	1.033	295,800	.073	58	7	25	475	231	289	1350
Recaptured and un- budgeted funds.....			9,039.00	....	9,039	....	.....	....	.....	....	..	..	..	.....	.....	.....	.....
Grand Total.....	1,061,929		\$5,623,263.32	1,385	\$1,132,000	.279	\$4,195,463.32†	1.033	\$295,800‡	.073	58	7	25	475	231	289	1350

\* Includes funds for Training Center (Twelve Centers—Total, \$35,000.00)

† Local Appropriation includes balance (brought forward) of \$233,762.31 from fiscal year 1953-54

‡ Mental Health Funds (\$81,300) included: Rameuse, Durham, Forsyth, Guilford, Wake, Charlotte

The breakdown of individual counties in the Districts does not include any special funds, extra funds or balances.

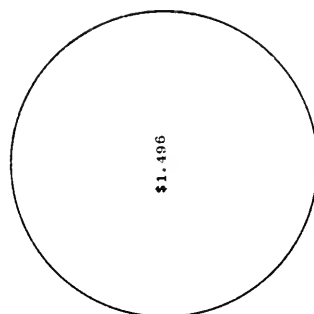
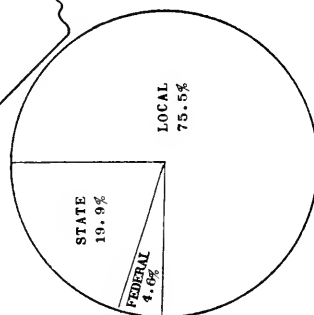
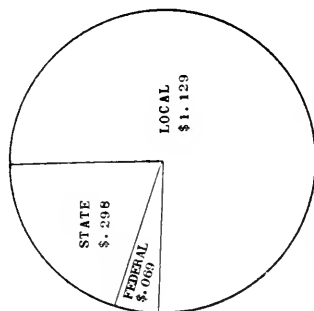
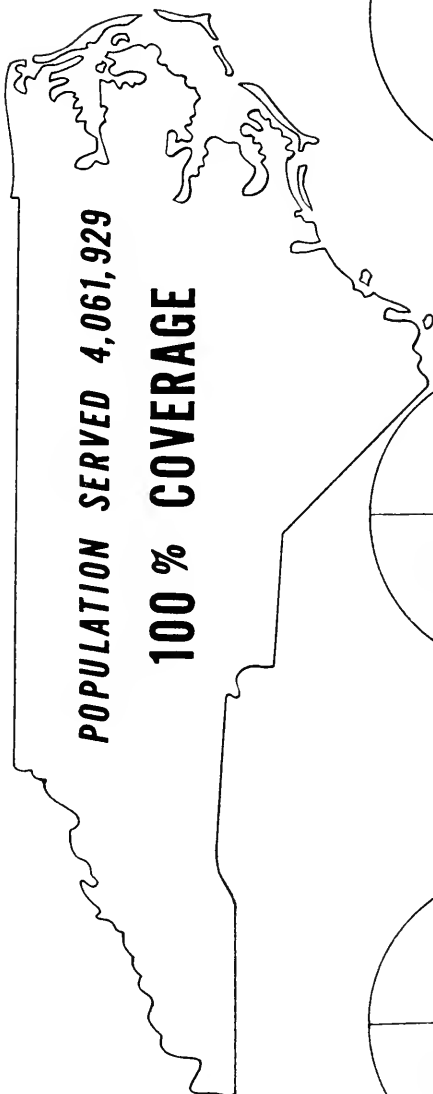
dn—Director of Nurses  
 es—Educational Supervisor P.H.N.  
 s—Supervising Nurse  
 v—Veterinarian  
 i—Public Health Investigator  
 b—Bacteriologist  
 d—Dentist  
 ed—Health Educator  
 N—Nutritionist  
 t—Technician  
 M.H.—Mental Health Personnel  
 Ex—Exclusive of  
 C—Charlotte  
 R.M.—Rocky Mount

# NORTH CAROLINA LOCAL HEALTH SERVICE BUDGET

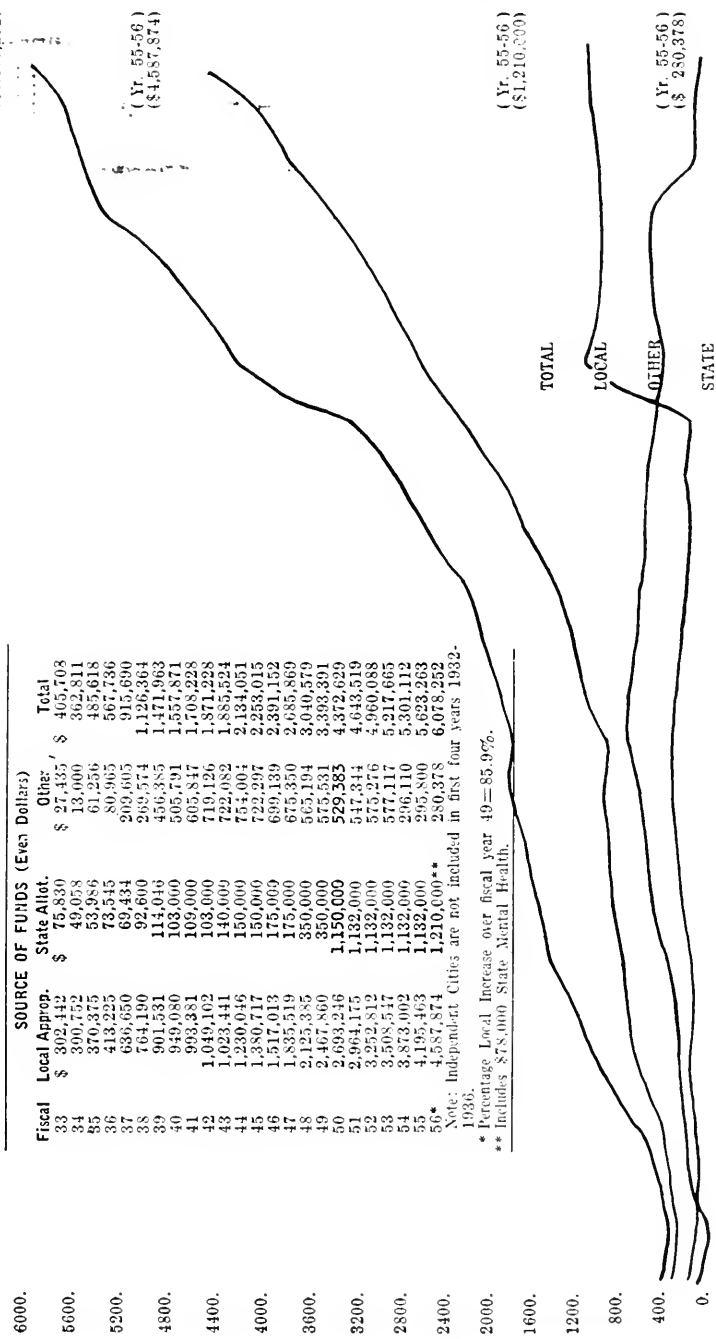
FISCAL YEAR 1955 - 1956

NUMBER 2

TOTAL STATE FUNDS INCLUDING MENTAL HEALTH (Regular \$1,132,000 + \$78,000 M.H.)	\$1,210,000.00
TOTAL FEDERAL FUNDS INCLUDING MENTAL HEALTH	\$280,378.00
TOTAL LOCAL FUNDS	\$4,587,874.47
TOTAL BUDGET LOCAL HEALTH	\$6,078,252.47



# Thousands \$ Source of Funds for Local Health Departments in North Carolina 1933-1956



TOTAL

LOCAL

OTHER

STATE

(Yr. 55-56)  
(\$6,078,252)(Yr. 55-56)  
(\$4,587,874)(Yr. 55-56)  
(\$1,210,000)(Yr. 55-56)  
(\$ 230,378)

33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56

TABLE NO. 2—DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES—FISCAL YEAR 1955-56

County, City or District	1950 Popula- tion	Date Organized	Total Budget		Per Cap. M. H.	Source of Funds and Amounts		Per Federal Inc. Federal M. H. and Other	H. O.	H. Med.	H. Off.	Full Time Personnel			Part. Wks.
			Amount	Per Cap.		Local Appropriation	Cap.					P. N.	Sant.	Clerks and Others	
Alamance.....	71,220	1938	108,071.40	1.517	15,898	85,707.40	1.203	\$ 6,466	1	..	..	11 ses.	5	57.	10
Alleghany-Ashe-Watauga...	48,375	1938-35	43,494.39	.899	18,605	22,291.39	.461	2,535	1	..	..	3	3	3	10
Alleghany.....	8,155	1938	9,115.00	1.118	4,524	4,200.00	.515	291	..	..	..	1	1	1	0
Ashe.....	21,878	1938	16,778.00	.767	7,549	8,000.00	.366	1,229	..	..	..	1	1	1	10
Watauga.....	18,342	1935	16,587.00	.904	6,532	9,080.00	.495	1,975	..	..	..	1	1	1	0
Ason.....	26,781	1937	31,711.85	1.296	8,929	24,244.85	.905	1,258	..	..	..	3	1	1	0
Avery-Mitchell-Yancey.....	11,801	1935-44-35	34,468.64	.769	18,270	13,900.61	.310	2,298	..	..	..	3	1	3	10
Avery.....	13,352	1935	9,775.00	.732	5,778	3,300.00	.247	697	..	..	..	1	.....	1	0
Mitchell.....	15,143	1944	11,182.00	.738	5,924	4,500.00	.297	759	..	..	..	1	.....	1	0
Yancey.....	16,306	1935	12,330.00	.756	6,568	4,920.00	.302	842	..	..	..	1	.....	1	10
Beaufort.....	37,131	1923	48,632.28	1.309	10,621	35,724.28	.962	2,279	..	..	..	5	2	2	0
Bedford.....	29,439	1934	23,838.02	.902	8,535	13,677.02	.517	1,636	..	..	..	2	1	1	0
Bladen.....	29,763	1921	31,593.15	1.064	9,900	19,742.13	.665	1,891	..	..	..	3	1	1	20
Brunswick.....	19,238	1949	11,378.59	.747	7,248	5,900.59	.307	1,255	..	..	..	2	1	1	0
Burroughs.....	124,103	1913	306,685.00	2.465	27,243*	257,303.00	2.068	22,149	178	2	5	18 s.	111.	130 t. ed.	20
Burke.....	15,718	1937	106,638.00	1.672	16,113*	42,576.13	.937	1,868	..	..	..	3	2	5	20
Calamus.....	63,782	1919	43,520.00	1.003	11,750	88,203.00	1.383	2,232	..	..	..	11 s.	5	5	10
Caldwell.....	23,352	1937	33,520.00	1.450	7,758	17,678.00	.767	1,940	..	..	..	2	1	1	20
Carteret.....	103,807	1938-40-47	152,301.82	1.274	29,298	98,666.83	.950	4,337	..	..	..	11 s.	8	60.	40
Catawba-Lenoir-Alex.....	64,794	1938	41,388.00	1.155	11,727	51,300.00	.879	2,233	..	..	..	2	1	1	20
Catawba.....	24,159	1940	42,208.00	1.175	8,413	29,549.00	.821	1,748	..	..	..	3	2	3	20
Alexander.....	11,534	1947	16,002.00	1.100	6,158	9,111.00	.626	1,216	..	..	..	3	2	1	10
Cherokee-Clay-Graham.....	31,186	1937	42,283.64	1.356	15,839	24,108.64	.773	2,342	..	..	..	3	2	3	20
Cherokee.....	18,294	1937	23,093.00	1.262	7,066	15,000.00	.820	1,027	..	..	..	4	1	1	10
Clay.....	6,006	1937	6,953.00	1.159	4,213	2,420.00	.163	356	..	..	..	2	1	1	0
Graham.....	6,886	1937	9,899.00	1.437	4,560	5,000.00	.726	339	..	..	..	1	.....	1	10
Cleveland.....	64,357	1938	63,701.17	.990	15,802	43,246.17	.703	2,633	..	..	..	1	3	20.	20
Columbus.....	50,621	1921	46,271.00	.914	11,369	28,966.00	.572	2,939	..	..	..	6	2	2	20
Craven.....	48,823	1921	61,017.50	1.311	12,000	49,490.50	1.013	2,527	..	..	..	48.	1	30.	10
Cumberland.....	96,006	1919	138,208.42	1.110	21,774*	91,902.12	.957	24,352	..	..	..	108.	51.	50.	20
Cumtuck-Bare.....	11,606	1938-37	29,018.00	2.500	8,468	20,000.00	1.723	550	..	..	..	2	1	1	10
Currituck.....	6,201	1938	13,747.00	2.247	4,452	9,000.00	1.451	295	..	..	..	1	.....	1	10
Dare.....	5,105	1937	13,271.00	2.455	4,016	9,000.00	1.665	508	..	..	..	1	.....	1	0
Davidson.....	62,244	1917	66,398.00	1.067	14,820	49,122.00	.789	2,456	..	..	..	6	4	30.	0
Pacifi-Yadkin.....	37,553	1938-31	41,343.18	1.101	13,197	26,600.18	.708	1,546	..	..	..	4	1	2	10

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937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TABLE NO. 2—(Continued)

County, City or District	1950 Popula- tion	Date Organized	Total Budget		Source of Funds and Amounts					Full Time Personnel					Dent. Wks.	
			Amount	Per Cap.	State Allotment Inc. St. M. H.	Per Cap.	Local Appropriation	Per Federal Inc. Cap.	Federal M. H. and Other	Per Cap.	H. O.	M. Med.	P. N.	Sant.		Clerks and Others
Nash (Ex. R.M.).....	45,134	1915	44,837.00	.993	11,839	.262	30,707.00	.680	2,291	.051	1	..	4	2	1	20
New Hanover.....	63,272	1913	129,685.22	2.050	15,758	.249	110,927.22	1.753	3,000	.048	1	..	12s.	5	10b.	20
Northampton.....	28,432	1917	33,560.23	1.180	9,310	.327	22,464.23	.790	1,786	.063	1	..	8	1	1	10
Onslow.....	42,047	1941	42,822.99	1.018	9,798	.233	31,170.99	.741	1,854	.044	1	..	4s.	1	2	0
Orange-Peron-Chat.-Lee.....	107,710	1935-37-46	146,626.68	1.361	41,201*	.382	90,591.68	.841	14,834	.138	1	1	13s.	5	8b.	40
Orange.....	34,435	1935	29,236.00	.849	8,998	.261	19,000.00	.552	1,238	.036	..	..	7	2	4	10
Person.....	24,361	1935	24,811.00	1.020	8,571	.352	15,000.00	.616	1,270	.051	..	..	3	1	1	10
Chatham.....	25,392	1937	24,283.00	.956	8,569	.337	14,400.00	.567	1,314	.052	..	..	2	1	1	10
Lee.....	23,522	1946	21,695.00	.922	8,063	.343	12,500.00	.531	1,132	.048	..	..	2	1	1	10
Pamlico.....	9,993	1949	12,277.00	1.229	5,070	.507	6,623.00	.663	584	.059	..	..	1	1	1	0
Past-Peru-Cam-Chowan.....	51,712	1942-43-37	72,943.83	1.411	22,638	.438	47,564.83	.920	2,741	.053	1	..	6	2	7t.	30
Pasquotank.....	24,347	1943	29,579.95	1.215	7,710	.317	20,694.95	.850	1,175	.048	..	..	3	.....	4	10
Perquimans.....	5,602	1943	13,880.70	1.446	5,175	.539	8,161.70	.850	1,544	.057	..	..	1	.....	1	0
Camden.....	5,223	1943	8,801.55	1.685	4,068	.779	4,439.55	.850	294	.056	..	..	1	.....	1	0
Pender.....	12,540	1937	27,521.00	1.194	7,091	.385	10,655.80	.850	728	.058	..	..	2	1	.....	10
Pitt.....	18,423	1941	97,738.00	1.375	16,184	.254	68,203.00	1.045	1,171	.064	..	..	9s.	4	5	10
Randolph.....	63,780	1917	53,101.50	1.045	12,632	.249	38,510.50	.758	1,959	.038	1	..	4s.	2	3	20
Richmond.....	50,804	1927	53,101.50	1.045	11,158	.282	34,823.00	.880	1,841	.047	..	..	8	1	2	20
Robeson.....	39,597	1924	47,822.00	1.209	11,432	.267	52,538.00	.599	5,754	.065	1	..	8s.	3	4ed.	20
Robeson.....	87,769	1912	80,697.00	.919	22,405	.267	52,538.00	.800	2,686	.045	1	..	2	3	3	10
Rockingham-Caswell.....	85,686	1940-44	98,872.01	1.154	22,839	.267	73,165.01	.582	2,686	.041	..	..	6	3	3	10
Rockingham.....	64,816	1940	69,647.00	1.073	15,137	.234	51,821.00	.800	1,182	.037	..	..	2	3	3	10
Caswell.....	20,870	1941	21,346.48	1.023	7,702	.369	12,462.48	.597	1,182	.037	..	..	2	3	3	10
Rowan.....	53,310	1918	89,666.89	1.159	17,603*	.234	69,256.89	.918	2,807	.037	1	..	9s.es.	4	2	20
Rutherford-Polk.....	57,983	1924-38	49,717.45	.838	17,390	.300	29,839.45	.515	2,468	.043	1	..	4	2	3	20
Rutherford.....	46,356	1924	32,902.00	.710	11,892	.257	19,038.00	.411	1,972	.042	..	..	3	1	2	10
Polk.....	11,027	1938	10,921.00	.939	5,498	.473	4,927.00	.424	496	.042	..	..	1	1	1	10
Sampson.....	49,780	1913	53,284.33	1.070	13,552	.272	36,599.33	.735	3,133	.063	1	..	5	2	2	0
Scotland.....	26,336	1943	40,480.00	1.537	9,312	.354	29,446.00	1.118	1,722	.065	1	..	4	1	1	20
Stanley.....	37,130	1937	36,542.81	.994	10,331	.278	24,772.84	.667	1,439	.039	1	..	3	1	1	20
Stokes.....	21,520	1931	21,667.57	1.007	7,335	.341	13,421.57	.624	911	.042	..	..	2	2	3	10
Surry.....	45,593	1919	57,101.31	1.252	12,140	.266	43,032.34	.944	1,929	.042	1	..	5	2	3	10
Tyrell-Washington.....	18,228	1937	25,438.73	1.423	9,993	.548	14,843.73	.814	1,929	.042	1	..	2	1	1	0
Tyrell.....	5,048	1937	8,845.00	1.653	4,043	.801	3,972.00	.787	330	.065	..	..	1	.....	1	0
Washington.....	13,180	1937	16,574.94	1.258	5,950	.451	9,852.94	.748	772	.059	..	..	1	.....	1	0
Union.....	42,634	1938	34,487.59	.820	11,512	.274	20,864.59	.496	2,111	.050	1	..	2	1	2	10

Vance.....	32,101	1920	22,845.80	.712	9,308	.290	11,816.80	.368	1,721	.054	1	..	2	1	1	0
Wake.....	136,450	1918	214,671.39	1.373	43,728	.320	165,366.59	1.212	5,577	.041	1	1	7s.	6	70d.	20
Warren.....	23,339	1945	22,637.20	.962	8,174	.347	12,807.20	.544	1,656	.071	..	..	2	1	1	0
Wayne.....	64,267	1920	93,137.38	1.449	15,965	.248	73,553.38	1.148	3,419	.053	1	1	7s.	4	61.	0
Wilkes.....	45,243	1920	30,367.58	.671	11,887	.263	16,151.58	.357	2,329	.051	..	..	2	1	1	0
Wilson.....	54,506	1916	58,285.00	1.069	14,039	.257	41,315.00	.758	2,931	.054	1	..	6	2	2	10
Total (Counties).....	3,900,190	.....	5,421,466.87	1.390	1,150,650	.295	4,006,184.87	1.027	264,632	.068	58	9	31	435	211	258
Charlotte.....	134,042	1918	576,039.60	4.297	38,652	.288	523,464.60	3.905	13,923	.104	1	2	6	41ses.	25ds.v.	26d.t.h.n.
Rocky Mount.....	27,697	.....	67,611.00	2.441	7,566	.273	58,225.00	2.102	1,823	.066	..	..	5	2	4b.	10
Total (Cities).....	161,739	.....	643,653.60	3.979	46,218	.286	581,689.60	3.596	15,746	.097	1	2	6	46	27	30
Combined Total.....	4,061,929	.....	6,065,120.47	1.493	1,196,868	.295	4,587,874.47	1.129	280,378	.069	59	11	37	481	238	1020
Recaptured and unbudgeted funds.....	.....	.....	13,132.00	.....	13,132	...	.....	.....	.....	.....	...	..	..	.....	.....	.....
Grand Total.....	4,061,929	.....	\$6,078,252.47	1.496	\$1,210,000†	.298	\$4,587,874.47‡	1.129	\$280,378x	.069	59	11	37	481	238	1020

\* Includes funds for Training Centers (Eleven Centers—Total \$21,400.00)

† State Mental Health Funds (\$78,000.00) included: Durham, Guilford, Wake, Charlotte)

‡ Local Appropriation Includes balance (brought forward) of \$218,037.57 from fiscal year 1954-55

x Federal Mental Health Funds (\$71,728) included: Alamance, Rutherford, Forsyth, Charlotte

The breakdown of individual counties in the Districts does not include any special funds, extra funds, or balances

dn—Director of Nurses

ds—Director of Sanitation Activities

es—Educational Supervisor P.H.N.

s—Supervising Nurse

v—Veterinarian

i—Public Health Investigator

b—Bacteriologist

d—Dentist

ed—Health Educator

n—Nutritionist

t—Technician

M.H.—Mental Health

Ex—Exclusive of

C—Charlotte

R.M.—Rocky Mount

During this two-year report period the Film Library received and processed more than 10,752 pieces of correspondence. The Library distributed 25,898 films in 17,721 individual shipments. More than 5,000 film catalogs and supplemental film lists were prepared and distributed to interested film borrowers including health departments, schools, churches, colleges, civic groups, etc. There has been an ever increasing trend of new film borrowers especially in schools, colleges, churches and civic groups and organizations. Even with this large film distribution the library is still unable to meet the demand for this ever increasing service. Due to an insufficient number of prints of films 818 individual requests were turned down during this period. There were 127 new films purchased at a cost of \$9,451.97 during this period.

The library also distributed the following amounts of venereal disease drugs: 40,929,000,000 units of Bicillin, 35,019,000,000 units Penicillin, 1,770,000,000 units of Crystacillin, 59,400 grams Sulfadiazine, 32 vials Frei-Test Antigen, 53 vials Ducrey Vaccine, 33 bottles V. D. R. L. Antigen, 7,000 A. P. C. tablets, 2,468-250 mg. capsules Aureomycine, 18-50 tablet bottles Pyrabenzamine, 256-5 gram vials Streptomycine, 1930-250 mg. capsules Achromycine and 24 vials Kahn Antigen.

The Library used a total of \$1,752.48 in postage for fourth class mail *only*.

In June of this year the Film Library assumed the additional responsibility of distributing all the Bicillin tablets for the Crippled Children's Section which is sent to the Rheumatic Fever Clinics throughout the state.

**NURSING SECTION**—At the close of the biennium, the Public Health Nursing Section staff consisted of a chief, two generalized consultants and four generalized consultants with specialties in Mental Health, Tuberculosis, Planned Parenthood, and Occupational Health. Five other nurses are employed at the State Board of Health who are administratively placed in other section: One in the Maternal and Child Health Section, one in the Home Accident Prevention Section and three in the Crippled Children's Section. From November 1954-July 1955 a nurse was loaned from the United States Public Health Service as Educational Consultant; in July 1955 this position was budgeted but has not yet been filled. In December 1954, the Venereal Disease Public Health Nursing Consultant loaned from the United States Public Health Service was transferred out of the state.

A census of public health nurses in the state was taken in January 1955. At that time there were a total of 506 nurses employed in local health departments. Of this number, approximately two-thirds had not completed a program of study in Public Health Nursing. This indicated the need for recruitment of prepared personnel, staff educational programs, and adequate consultation and supervision.

The following are highlights of the section activities in meeting these needs:

- (1) A staff education committee has developed plans for improving the quality of the work in public health nurses by on-the-job training.



For the past two years a calendar of educational events has been prepared which promotes long-range planning. From this committee came a plan which states that all nurses coming into public health without academic preparation will begin a series of courses given through extension by the School of Public Health, Chapel Hill, which will enable a nurse to have a semester of the program of study in public health nursing during her first year or two of employment. Forty nurses attended the first of these classes in June 1956. Extension courses in basic public health nursing principles were also given to the eastern section of the state during 1954 and 1955. To improve the quality of supervision, a course in Public Health Supervision was given through extension by the School of Public Health. To improve consultation to local health departments, this committee initiated the development of a workshop on Consultation for all consultants from the State Board of Health. Other staff education programs for local public health nurses included: Tuberculosis, Mental Health, Maternity, Rheumatic Fever, Child Growth and Development, Nutrition, Cancer, Cardiovascular Diseases and Home Accident Prevention. The experience given at Duke for care of the premature was enlarged to include the care of all newborns.

- (2) The Public Health Nursing Subcommittee of the North Carolina Advisory Committee on Training was reactivated to work through some of the urgent problems regarding field experience in public health nursing. The demands for this has increased because of the development of the Collegiate Schools of Nursing. The University of North Carolina School of Nursing has been accredited for public health nursing and is supplying some personnel in beginning positions in public health nursing. The Schools of Nursing of Duke University, Agricultural and Technical College and Teachers College of Winston-Salem are preparing for accreditation.
- (3) A records committee has revised the records used by the public health nurses in local health departments and prepared guides for their use.
- (4) The committee to revise the Public Health Nursing manual has been engaged in this accomplishment. All public health nurses in the state are involved.
- (5) An evaluation committee is giving leadership in evaluating the performance of the public health staff nurse. Later evaluation of other groups of nurses in public health will be included.
- (6) To provide more continuous nursing care, interagency referrals between health departments and hospitals have been developed for the patients of the tuberculosis sanatoriums within the state and for patients of North Carolina Memorial Hospital in Chapel Hill.

**HEALTH EDUCATION SECTION**—The goal of this Section is the advancement of health education through service and consultation to other units of the State Board of Health, to local health departments with and without health educators on their staffs, and to statewide organizations which have health education programs and activities.

With some changes in personnel, during most of the period the professional staff has consisted of two people, the chief and a consultant whose territory is the western half of the state. The Chief gives limited service to the eastern counties in addition to other duties.

The staff has taken a very active part in the joint activities of the State Board of Health, such as the Conferences on Consultant Coordination in 1955, the Consultation Workshop in 1956, the State Fair Exhibit both years, and program reviews of local health departments. Specific requests for service have come from nine Sections and assistance has been given on matters ranging from preparation of publicity items to teaching a portion of an extension course for public health nurses.

Consultation to local health educators has been made more systematic with the availability of two professional workers. Regular visits were made semi-annually. Additional monthly visits were made to new health educators for the first year of their work. All these, with other visits made on request, totaled fifty-four visits to health educators in thirteen counties. The Section has arranged for semi-annual one-day inservice education meetings of these workers.

The Section has assisted local health departments without health educators in their health education activities by answering request. Help was given through fifty-nine visits to thirty-five counties. Requests included assistance in preparing for a Mass X-Ray Survey, utilizing the educational possibilities of new health centers, inservice education, conferences with staffs on particular health education problems and opportunities, and other matters.

The Section has cooperated actively in the health programs of one regional, twelve statewide, and two local organizations and of six statewide agencies. This has entailed participation in planning and carrying out various educational and professional activities. Examples are the Family Life Workshop of the North Carolina Congress of Parents and Teachers, the Summer Workshop of the North Carolina College, and the North Carolina Health Council's study of health expenditures. In an effort to exercise appropriate leadership the Section has made a beginning in providing a means for cooperative planning by several statewide organizations whose major activity is health education.

Recruitment of health educators is a responsibility of the Section. A conspicuous feature of the biennium has been the reduction in the number of health educators in local health departments. At the beginning of the period there were seventeen and at the close, twelve. The major contributing factors to this decline are the small number of such students who have been trained in these years, the uncertainty and scarcity of scholarships available from the State Board of Health, low salaries paid, as compared to those which health educators can obtain in health education positions in other states and agencies and in other fields of work, and the loss of budgeted positions when there is no one available to fill a vacancy within a reasonable time. During 1955-56 a scholarship recipient attended the School of Public Health and will take a position in a local health department.

At the close of the biennium two budgeted vacancies existed in local departments and one in the Mental Health Section of the State Board of Health after vigorous recruitment efforts had been made.

Of international benefit is the program of providing observation experience in the State Board of Health and local health departments for foreign public health workers. Eight persons were scheduled by the Section for periods extending from half a day to two weeks.

It should be noted that there is a great need for the addition to the staff of a consultant to devote full time to counties in the eastern part of the state in the same way that the one consultant now assists the western counties. Also, in recognition of the fact that many counties will never be able to employ individual health educators, there is a need for the state to consider providing health educators for districts of eight or ten counties. This might well be started in the near future with a demonstration in one or two such districts in the eastern part of the state.

**MENTAL HEALTH SECTION**—Since July, 1954, the Mental Health Section has developed an expanding, progressive, dynamic program; only the scarcity of mental health personnel preventing even greater expansion. For instance, it has been impossible, so far, to recruit a mental health educator and a clinical psychologist for the Mental Health Section which presently has a staff of two, the Chief and Secretary; an educational psychologist being assigned to the School Health Coordinating Service as Mental Health Consultant and a Mental Health Nurse being assigned to the Public Health Nursing Section.

Though training funds were limited, the training program was expanded slightly. A stipend was awarded a psychiatric social work student; field work training was provided two psychiatric social work students by two mental health clinics; two other clinics provided field work training for two first year social work students. Several psychiatric residents and clinical psychology students received training at one mental health clinic, and still another clinic planned to initiate a training program for clinical psychology students.

A successful two-week workshop on community mental health—the first of its kind some said—was initiated by the Mental Health Section staff and co-sponsored with the Extension Division, University of North Carolina. The inservice training courses for teachers and public health nurses were continued; the director of one mental health clinic led monthly discussions for public health nurses, the director of another clinic led similar discussions for social workers.

Though the services of a mental health educator were needed, the educational program was slightly expanded. More mental health literature and books were purchased and distributed; the mental health films continued to be widely used; arrangements were made with the Department of Radio, Television, and Communications, University of North Carolina, for writing and production of three radio scripts. During the first half of the biennium, thirty-five radio spot announcements were prepared, distributed, and used; five radio interviews prepared and presented; a news feature written and published; other literature mimeographed and dis-

tributed; and the North Carolina Mental Health Association assisted with the planning of a State Fair Exhibit. The objective of this educational effort was to inform people of the need for more mental health facilities.

An intensified recruitment campaign was launched. Psychiatric, clinical psychology, and psychiatric social work openings were advertised in the professional bulletins; a mimeographed letter telling about opportunities was mailed to the psychiatric training centers throughout the country; all potential applicants were answered by a detailed letter; with the assistance of the Chief, Health Education Section, a pamphlet "Professional Opportunities in North Carolina's Growing Program in Mental Health" was prepared and seven thousand copies printed. This pamphlet has been mailed throughout the country to psychiatrists, clinical psychologists, psychiatric social workers and professional schools. By June 30, 1956 only two vacancies existed.

Though more money will be needed to reach the goal of 10 Regional Mental Health Centers, the goal was approached. Two new centers were established: the Cumberland County Guidance Center and the Pitt County Mental Health Clinic. Two centers, the ones in Wilmington and Elizabeth City, are still to be established.

Increased allocations to other centers resulted in the clinic in Winston-Salem becoming full-time instead of part-time; the addition of a second psychiatric social worker to the Raleigh and Guilford County Clinics' staffs; the Durham Child Guidance Clinic adding a second psychiatrist, a part-time consulting analyst, a second psychiatric social worker, and becoming the first clinic in the State to have the honor of being accepted as a member of the American Association of Psychiatric Clinics for Children; the Asheville Clinic filling all former vacancies. Alamance County Health Department was allocated money for the addition of a psychiatric social work consultant to its staff.

At the beginning of the biennium, there were only six centers, some poorly staffed, whereas there were eight by June 30, 1956. Yet during the biennium these mental health centers accepted 3,691 new patients, readmitted 457 patients, had a total of 6,651 patients under active treatment, and patients received 33,095 time-consuming treatments.

**SCHOOL HEALTH COORDINATING SERVICE**—The School Health Coordinating Service continued to work under the joint administration of the State Board of Health and the State Department of Public Instruction.

Staff members worked primarily with school superintendents, principals, supervisors, teachers, health officers, health educators, nurses and sanitarians, but continued to cooperate with other agencies and organizations interested in school health.

The School Health Coordinating Service administered the expenditure of School health Funds, amounting to \$550,000 for the year 1954-55, in accordance with policies adopted by the State Board of Health and the State Board of Education February, 1952.

A new "Policy Governing the Expenditure of School Health Funds" was adopted by the State Board of Education and the State Board of Health, June 10, 1955, in accordance with Section 18.2 of the Budget

Appropriation Act for the Biennium 1955-57 under Title IX-I for the Child Health Program.

The 1955 General Assembly reduced the annual appropriation to the State Board of Education for grants in aid to city and county school administrative units from \$550,000 to \$425,000. Therefore, the allotments to school administrative units were reduced to 35¢ per pupil in average daily membership and to \$750.00 for each county regardless of the school population.

During the school year 1955-56 no school health funds were spent for administrative personnel, supplies or equipment and no administrative unit was permitted to spend more than 20% of its allotment for all purposes other than correction of chronic remediable physical defects of indigent or medically indigent children.

According to reports filed by local health departments at the end of the calendar year 1955 the following health services were rendered school children during the school year 1954-1955: Reports for school year 1955-1956 will not be available from the same source till the end of calendar year 1956.

(1) Medical examination of school children:

(a) Number examined by health departments	178,518
(b) Number examined by private physicians	17,064
(c) Number examined by physicians who were paid out of school health funds	23,195

(2) Number of children referred to physicians or clinic for medical care or treatment (excluding dental referrals) 62,945

(3) Number of children who secured medical care or treatment as a result of school referrals (excluding dental) 54,797

(4) Number of corrections for underprivileged children which were paid for out of school health funds (excluding dental) 11,423

(5) Number of children who had eyes examined 15,444

(6) Number of children given audiometer (hearing) tests 51,732

(7) Dental Services:

(a) Dental corrections for underprivileged children which were paid for out of school health funds. 24,160

(b) Report on dental inspections, referrals and corrections made by dentist employed by Division of Oral Hygiene is included in the report of the Division of Oral Hygiene.

## CORRECTION OF DEFECTS

Defect	Number of Children Receiving Services
	1954-1955
Tonsils .....	7,836
Ears .....	1,702
Hernia .....	127
Orthopedic .....	982
Intestinal Parasites .....	586
Glasses .....	850
Nutrition .....	2,206
Hookworm .....	850
Heart .....	97
Eye Surgery .....	11
*Dental .....	120,026
Others .....	3,325

\*Includes corrections made by private dentist, Oral Hygiene Division dentist and dentist paid out of school health funds.

Services of the staff of the School Health Coordinating Service with school and health department personnel included consultative service, field visits, planning and carrying on inservice education, production of materials, reviewing and recommending use of materials, locating and recommending the use of local, State and National resources, evaluative procedures, joint State conferences and committees and State and National organizations in the following health phases:

(1) Health Services. This involved working and advising with school and health department personnel in regard to teacher screening and observation of children with obvious deviations from normal, medical examinations, follow-up work to get corrections, adequate and up-to-date records and making educational experiences out of health services.

(2) Health Instruction. This involved working with teachers, supervisors and administrators in identifying and solving child health needs through experiences directed toward improvement of health habits, attitudes and knowledge. Assistance was given to local school personnel in the preparation of materials of instruction and in the evaluation of such areas as mental hygiene, community health, family life education, communicable disease control and sanitation, safety and personal health problems such as nutrition, dental health, rest and sleep, care of the eye, ear, nose and throat and alcohol and narcotics education.

(3) Healthful School Living (The environmental aspects of health). This involved assisting administrators in selecting, improving and maintaining healthful environmental facilities. It also involved work with administrators in the organization of the total school health program to prevent overcrowding, tensions, or an unbalanced program.

(4) Physical Education. This involved giving assistance through conferences, inservice education programs, and demonstrations in organizing and conducting the physical education programs.

(5) Mental Hygiene. The Consultant for Mental Hygiene worked with schools and health departments to make mental hygiene an integral part of the entire school health program. Mental hygiene was emphasized from the positive approach as:

(a) An area in health instruction.

(b) A healthful way of living for teachers, pupils and parents in whatever activity they are engaged.

During the year, extended programs have been conducted on a city-wide or county-wide basis for teachers and administrators. These programs have been jointly sponsored and participated in by school and health department.

## DIVISION OF EPIDEMIOLOGY

During the biennium ending June 30, 1956, the Division Director was given the added responsibility of administering the state-wide poliomyelitis vaccination program, which involved the purchase and distribution of poliomyelitis vaccine and the recording of the inoculations of the vaccine given by the county health departments to provide protection against paralytic poliomyelitis. At the close of the biennium, a total of 974,644 ccs. of poliomyelitis vaccine had been purchased under the Federal poliomyelitis vaccination program. This was 51.2 per cent of the total amount of vaccine made available to North Carolina. The remaining 48.8 per cent had been released to commercial channels in this state. From its beginning in February 1955 until it officially closed on October 10, 1955, the poliomyelitis vaccination program was sponsored by the National Foundation for Infantile Paralysis. Under the National Foundation for Infantile Paralysis program, 362,261 inoculations were given (223,136 first inoculations, 136,871 second inoculations, and 2,254 third inoculations). Under the Federal poliomyelitis vaccination program, as of the close of the biennium, a total of 596,932 inoculations had been given (293,259 first inoculations, 235,916 second inoculations, and 67,757 third inoculations).

There has been material expansion of the activities of the Occupational Health Section during the biennium through the employment of a medical director of the Section in April 1955, and the subsequent employment of a specialist in diseases of the chest, who will, from August 1, 1956, serve both the Tuberculosis Control Section and the Occupational Health Section as examining physician. Other personnel recruited during the latter half of the fiscal year 1956 includes an experienced medical officer trained in communicable disease control who will fill the position as Chief of the Communicable Disease Control Section made vacant by the resignation of the Chief of that Section in June 1955. Also, during the latter part of the biennium the Division was successful in recruiting an engineer experienced and well trained in occupational health work who will report for duty on August 1, 1956. Plans for further expanding the occupational health program have been completed.

The various sections of the Division of Epidemiology have the following activities to report for the biennial period.

### COMMUNICABLE DISEASE CONTROL SECTION

The application of scientific methods to diagnosis, treatment and prevention of communicable diseases has brought about a steady decline in the incidence of deaths and illness from the infectious diseases during the past two years.

Six of ten leading causes of death in North Carolina were attributable to communicable disease in the early years of this century. At the present time, no communicable disease appears on the list of the ten leading causes of death in this state. Tuberculosis, which was the last of the communicable diseases to appear on such a list, fell below the tenth position for the first time in 1953.



While striking progress has been made in the control of the infectious diseases, such diseases still continue to exact a significant toll as evidenced by the fact that approximately 600 deaths were attributed to this group of diseases in the past year. Furthermore, the very decline of communicable disease incidence has produced an increasing need for vigorous case finding since the relative rarity of certain diseases may permit cases to escape detection. Such cases then may serve as foci from which illness may be spread to considerable numbers of individuals before positive recognition of its presence is made.

To strengthen the Section's activities in the investigation of cases and outbreaks for the reason cited above, and to aid in guarding against the threat of germ warfare, the U. S. Public Health Service has assigned a field epidemiologist to North Carolina. From July 1954 through June 1955, the assigned officer carried on studies related to the various infectious diseases. The field epidemiologist assumed the duties of the Section Chief when that post became vacant in July 1954. The assignment of public health personnel to the Section by the U. S. Public Health Service is to be encouraged since trained epidemiologist physicians serve to strengthen communicable disease control programs at both state and local levels. Dependence upon Federal personnel and funds for the maintenance of communicable disease activities, however, is hazardous since reductions in such personnel and aid may result in the loss of physicians presently filling important posts and sharp curtailment of necessary control and infectious disease investigation activities. In 1955 a total of 8445 report forms were studied and analyzed. Special studies were made relative to 463 cases of poliomyelitis, eighty-five cases of diphtheria, thirty-five cases of typhoid fever and eighteen cases of malaria. Detailed special investigations were also carried out in the fields of food-borne illness, psittacosis, anthrax, encephalitis and undulant fever. The total cost of these activities was approximately \$22,000.

The biennium has widespread use of Salk poliomyelitis vaccine. One county, Guilford, participated in the initial evaluation of the vaccine, generally referred to as the 1954 field trials. The pooled data obtained from such studies over the whole of the United States revealed the vaccine to be an effective preventive measure. In 1955, the vaccine was initially made available to children in the first and second grades by the National Foundation for Infantile Paralysis, the organization which sponsored the 1954 field trials. In midsummer of 1955, Federal funds became available for the purchase of vaccine and administration of the vaccination program. In the course of the year, vaccine was made available to age groups 0 through 19 and pregnant women. Poliomyelitis cases fell from 732 in 1954 to 463 cases in 1955. A further decline in case incidence has been noted in the first half of 1956. How much of the decline is attributable to the use of Salk poliomyelitis vaccine remains to be determined by long range observation and study. As mentioned above, the vaccine has yielded promising results in the prevention of paralytic poliomyelitis, and it is hoped that its impact upon the reduction of this type of poliomyelitis will be a significant one in the succeeding years.

A case of smallpox was not recorded during the biennium. Diphtheria, once a great scourge of North Carolina, has shown a steady decline in reported cases. Eighty-five cases were recorded in 1955 as compared with 125 cases in 1954. In each instance the cases recorded were the fewest recorded up to that time. It is worthy of note that diphtheria incidence has fallen in North Carolina at a time when many areas of the United States, including neighboring Southeastern states, have shown a rising incidence of this disease.

Malaria incidence has fallen somewhat since the time immediately following the Korean war. Twenty-three cases were reported in 1954, and eighteen in 1955. In the past year, seventeen of the eighteen cases were of military, extra-territorial, origin.

The number of cases of typhoid fever reported has not varied significantly in several years; however, the continuing presence of carriers of the infecting organism makes possible infection of a certain number of individuals each year. Further case reduction or possible eradication will depend upon the success of chronic carrier control. All known carriers are listed by the State Board of Health. Local health departments annually restudy carriers residing in their health jurisdictions.

Infectious hepatitis, a disease of relatively recent public health importance, is showing a declining incidence.

SUMMARY OF REPORTED CASES OF MAJOR COMMUNICABLE  
DISEASE, NORTH CAROLINA FOR THE YEARS 1951-1955  
AND JANUARY-JUNE 1956

Disease	1951	1952	1953	1954	1955	1956 Jan.-June
Diphtheria .....	373	202	130	125	85	20
Dysentery						
Bacillary .....	58	219	485	412	441	102
Encephalitis .....	9	4	15	47	16	14
Hepatitis .....		675	1,142	807	313	57
Malaria .....	82	305	48	23	18	
Measles .....	3,315	4,511	4,984	9,566	1,385	7,076
Meningococcus						
Infections .....	151	197	189	179	144	47
Poliomyelitis .....	314	538	926	732	463	20
Rocky Mountain						
Spotted Fever ..	61	38	40	28	43	6
Scarlet Fever ....	2,236	2,222	1,335	2,601	2,104	899
Septic Sore						
Throat .....	29	33	81	86	60	23
Smallpox .....			1			
Tularemia .....	17	19	15	18	9	6
Typhoid Fever ....	44	41	47	54	37	13
Typhus, Endemic ..	19	12	8	9	5	2
Undulant Fever ..	28	21	5	3	2	3
Whooping Cough ..	1,961	471	252	787	1,366	310

## PUBLIC HEALTH STATISTIC SECTION

The Public Health Statistics Section performed practically all of the statistical services for the State Board of Health during the biennium. This involved the collecting, processing, tabulating, and analysis of selected activities for twelve health programs conducted by various sections of the Department. In addition, all vital statistics activities were performed by the Section. This included the registration, certification, tabulation, and records preservation of North Carolina's births, deaths, and stillbirths.

Efforts to improve registration of vital events throughout the state have been paying dividends. The certificates are filed more promptly, they are more completely accurate, and the copies made therefrom for use by the registers of deeds are generally better as to completeness, legibility, and permanency. Registration in sixty-nine counties and one city was handled by the local health department. Thirty-one counties were served by town and township registrars appointed by chairmen of the boards of county commissioners. Eventually it is hoped to consolidate all of the one hundred counties, with the local health officer serving as registrar for each county. The principal reason for this planned action is justified since the per cent of certificates filed one or more months late was two and one-half times higher in the thirty-one nonconsolidated counties than in the consolidated counties. The per cent of certificates filed late in the entire state was approximately three times as high in 1948, when there were only nineteen consolidated counties, as it was during the last quarter of this biennium. Local health departments can handle vital registration more economically and efficiently. There is less confusion on the part of the physicians, midwives, and funeral directors as to where to file the certificates, and the number of local registrars that have to be furnished supplies and instructions is reduced drastically. At one time there were over 1500 registrars; as of June 1954 this number had been reduced to 284 as a result of consolidation.

There were more certified copies of birth and death certificates issued during the last biennium than in any other two-year period since the vital statistics laws became effective in October 1913. This was caused by the increased number of births and the increased uses made of birth and death certificates. Due to an increase in the number of births, more photographic copies of birth certificates were mailed to parents than ever before. Also, there were more delayed birth certificates (42,000) filed.

The crude birth rate in 1955 was 26.7 per 1,000 population and the crude death rate was 7.5. North Carolina continues to have one of the highest ratios of births to deaths in the nation. In 1955, there were 356 births for every 100 deaths, whereas, in the nation the ratio was 271 to 100. This is primarily due to North Carolina's relatively younger population.

Although the infant mortality rate (30.3 infant deaths per 1,000 live births) and the maternal mortality rate (8.7 maternal deaths per 10,000 live births) were lower in 1955 than in 1953 by 7 per cent and 12 per cent, respectively, thirty-seven other states had a more favorable infant rate and forty-four states had a lower maternal rate. It should be borne in mind that this low rank in the nation is partially due to the higher propor-

tion of nonwhites in the North Carolina population (about 26 per cent) than in the nation (about 10 per cent). The infant and maternal rates among the nonwhites are two and three times as high, respectively, as among the whites.

The ten leading causes of death are shown below. Again, as during the last biennium, tuberculosis is not found in the top ten killers. If the crude death rate of 1916 (the year North Carolina became a member of the National Death Registration area) had continued in 1955, there would have been 6,146 deaths from tuberculosis instead of the 258 that were recorded from this cause.

CAUSE	NUMBER	RATE
Diseases of the heart	11,155	258.3
Vascular lesions affecting central nervous system	4,393	101.7
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	3,942	91.3
All accidents (except motor vehicle)	1,292	29.9
Influenza and pneumonia	1,287	29.8
Motor vehicle accidents	1,206	27.9
Immaturity	813	18.8
Diseases of arteries	650	15.0
Nephritis and nephrosis	528	12.2
Congenital malformations	512	11.9

Over three-quarter million health reports of various types were collected and processed. These reports consisted of birth and death certificates, communicable disease report cards, tuberculosis x-ray reports, cancer medical charts and stomach x-ray reports, venereal disease epidemiology reports, crippled children reports, reports on prematures born in selected centers, and fetal and neonatal death reports received from the three medical school teaching hospitals. Processing of these reports involved the editing, querying, coding, punching, and tabulating in order to delineate selected health and medical information. Without the use of the Section's punching and tabulating machines, only a small fraction of this information could have been prepared and disseminated to various users of the data—government agencies, medical schools, schools of public health, industrial and voluntary organizations, and individuals.

Individual listings of resident deaths by county and cause were prepared each year and mailed to the appropriate local health departments. These listings contain detailed information about the deceased and make it possible for the health officer to make more detailed evaluations of his county's health progress than is possible by use of the state and national annual reports. They are also made available much earlier than the published reports.

Approximately 15 per cent of North Carolinians who die or who are born each year die or are born in a county other than their county of usual residence. This is largely due to lack of or to an inadequate number of hospitals and physicians in certain localities. During the biennium 42,406 photocopies of birth and death certificates (illegitimate births excluded) were mailed to the county of residence for such events. These photocopies

provide the local health departments with information about their residents so that various health programs can be more completely planned and executed. The immunization and nursing programs, as well as case registers, can be improved by use of this information.

The Central Tabulating Unit prepared over 1,300 medical and health tabulations for various program directors, governmental agencies and other concerned people. Over one hundred tabulations were made as a result of requests for special information not routinely available in the monthly, quarterly, and annual reports.

During the biennium four new statistical studies were initiated in which the Section has an important part. They are as follows:

1. *Fetal and neonatal mortality study.* Participating in this study are the State Board of Health, the U. S. Children's Bureau, the obstetricians of the three medical schools, and the School of Public Health. An important aim of this study is to gain more knowledge about those factors which may influence prematurity and mortality. The long-range objectives of the study are to promote better maternal and child care by studying both the characteristics and their inter-relationships of this large group of fetal and neonatal deaths in North Carolina.
2. *Automotive crash injury research project.* This study seeks to learn more about injuries and deaths due to the engineering design of automobiles and then reduce such injuries and deaths by elimination or redesign of certain dangerous parts. This study is made possible by the participation of the N. C. State Highway Patrol, the State Board of Health, Cornell University Medical College, and physicians in the study area where the accident victims are referred.
3. *Neonatal death study of infants dying in those North Carolina hospitals delivering 500 or more children per year.* This study is conducted in cooperation with a committee appointed by the State Medical Society and is directed towards acquiring more detailed information regarding neonatal causes and ways of reducing this total.
4. *Anesthesia death study involving all deaths in North Carolina due to operations and post-operative conditions (deaths within seventy-two hours of operation).* This is another study done in cooperation with a committee of the State Medical Society.

At the present time, approximately 175,000 birth and death certificates are filed in the state office each year. This poses new problems for the Section since all such records must be processed and preserved indefinitely. Space to file these records must be found and ultimately more personnel will be necessary to process them. The general public is using the records more frequently and for more purposes. Medical and health personnel are realizing more and more purposes for which these certificates may be used in their programs.

Funds necessary to provide more personnel trained in statistical analysis would result in more of the tabulated health data now on hand being published for use by related agencies. Other health agencies can benefit from our findings. This is a long-range objective.

In summary, it is noted that during the biennium a slight increase was observed in the number of births. The number of deaths were about the same as during the previous two-year period; however, a higher proportion of the total was attributable to chronic disease causes. The average number of years remaining at birth reached an all-time high, according to the most recent life tables computed. The latest official data for North Carolina, 1949-51, are as follows:

COLOR AND SEX	AVERAGE LIFE EXPECTANCY
White male	66.5
White female	72.9
Nonwhite male	58.5
Nonwhite female	62.8

The white population increased at a faster rate than did the nonwhite and the downward trend in deaths from communicable diseases continued uninterrupted.

#### VENEREAL DISEASE CONTROL SECTION

Venereal disease morbidity reports for fiscal 1955-56 indicate a serious control problem in North Carolina. The State reported 8,126 new cases of syphilis during the biennium as compared with 7,069 for the preceding biennium.

The total number of treatments given for venereal diseases was 42,651 for the biennium as compared to 43,984 for the last biennium. In no local area have the diseases been eradicated, although in some areas an almost irreducible number of cases seems to have been reached. The feeling is that there will be a continued venereal disease problem until an immunizing agent is discovered. Since the carriers cannot be isolated, the only method of control is treatment for the infected person combined with effective and intensive epidemiologic techniques.

#### REPORTED CASES OF VENEREAL DISEASE IN FISCAL 1955 AND 1956

	1955	1956	Percentage Differences
Primary and Secondary Syphilis	275	316	+ 13.0
Early Latent Syphilis	950	1,017	+ 6.6
Late Latent and Late Syphilis	1,540	3,568	+ 56.8
Congenital Syphilis	190	270	+ 29.6
* Gonorrhea	17,798	16,200	- 8.9
Granuloma Inguinale, Lympho- granuloma Venereum, and Chancroid	276	251	- 9.1

\* Includes epidemiologically treated cases.

Prevention and control centers continue to operate at Charlotte, Durham, Wilmington, and Greensboro, the latter having begun operation in August 1955. These centers have rendered an invaluable consultative and diagnostic service to the counties. During the two years 49,777 persons have received diagnostic service in these control centers; of this number 10,251 received treatment for venereal disease.

As reported in the last biennium, the positive serologies from private physicians' cases were reported to the local health officers from the State Laboratory of Hygiene, beginning in July 1953. This activity has greatly increased the ratio of private physicians' reported cases to clinic cases, as indicated in the table below.

**NUMBER AND PER CENT OF TOTAL SYPHILIS CASES REPORTED  
BY PRIVATE PHYSICIANS AND CLINICS, BY STAGE  
DIAGNOSIS AND PERIOD, EXCLUDING MILITARY  
IN NORTH CAROLINA**

Stage Diagnosis	Fiscal 1955				Fiscal 1956			
	Pri. Phy.		Clinic		Pri. Phy.		Clinic	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Primary and Secondary .....	48	18.4	213	81.6	70	23.2	232	76.8
Early Latent .....	261	27.6	683	72.4	354	35.8	634	64.2
Late and Late Latent .....	258	17.9	1287	89.1	932	37.4	1560	62.6
Congenital .....	9	1.5	191	95.5	59	22.3	205	77.7
Total .....	576	19.5	2374	80.5	1426	35.1	2632	64.9

During the last few months this private physician program has been greatly intensified. Venereal disease epidemiologists have begun to make routine visits to private physicians to offer certain diagnostic services, as well as drugs for treatment of indigent patients, and interviewing and investigator services when indicated. This cooperative program between the private physician and the venereal disease case worker has greatly improved reporting among this group. In the past year, thirty-five per cent of total cases of syphilis were reported by private physicians as compared to seven per cent in 1953.

With the reduction of funds and personnel in 1953, it was felt that some reorganization was necessary to provide adequate geographic coverage for the maintenance of a good epidemiologic venereal disease program. Hence, the State was divided into seven epidemiologic districts. One senior investigator was assigned to each district. This person was held responsible for all epidemiological services for private physicians, health departments, and military installations.

As a result of the drastic reduction in funds and personnel in 1953, there was a slight upsurge in reported cases which caused much concern. The State agreed to renew the cooperative plan with the U. S. Public Health Service to recruit young college graduates for a one-year training program in the techniques of venereal disease epidemiology with the understanding that they could be withdrawn periodically and transferred to other areas of the nation. During the biennium, eighteen venereal disease investigators have completed this intensive training.

Several epidemics of primary and secondary syphilis have been reported, two of which were of major proportions. Three hundred and thirty-nine persons were involved in these two chains of infection, 50 per cent of which were teenagers.

Selective serologic surveying has been continued and somewhat intensified during the last two years. Approximately 85,000 blood tests performed on migrant laborers and other lower socio-economic groups reflected a reactor rate of nine per cent. Fifty per cent of this reactor group required

treatment to prevent the late manifestations of the disease. These figures indicate that there yet remains a large reservoir of latent syphilis which is a potential problem to the taxpayer.

Joint program activity was carried out in coordination with other sections of the State Board of Health in screening: (1) The Cherokee Indian Reservation for vitamin content, blood sugar, syphilis, height-weight, and tuberculosis. (2) A group was tested in Pitt County for blastomycosis and syphilis. (3) In Union County for syphilis and psittacosis, anthrax and Q fever. (4) Areas throughout the State for tuberculosis and syphilis.

The Section Chief rewrote and consolidated that State Public Health Law in relation to the venereal diseases in cooperation with members of the staff of the Institute of Government, Chapel Hill, North Carolina.

The Section rendered many other services during the biennium, which included medical consultation to local health departments, private physicians, hospitals and officials at the military installations. Several short courses were given to student nurses and public health workers covering the medical aspects of venereal diseases, contact interviewing and several venereal disease control problems. Literature and other technical aids were furnished to local health departments, schools, and other public agencies to aid in their control program. *The Invader*, a new film, was used and received favorable response. It shows the step-by-step development of medical knowledge and the changes in public attitude toward the disease.

The activities of the Section were carried out by the following personnel: Three physicians and a staff of twenty-three venereal disease workers provided by the U. S. Public Health Service. The State provided one secretary and one part-time clerk.

The total expenditure for the program during the biennial period was \$303,264; \$37,392 of this amount was State funds, and \$265,872 was Federal funds.

Dr. Warfield Garson, Chief of the Section, was transferred to Chapel Hill as Director of the Venereal Disease Experimental Laboratory and Research Professor at the School of Public Health, University of North Carolina on November 1, 1955. Dr. Garson has continued as Chief of the Venereal Disease Control Section. Dr. Clifford Cole, Surgeon, U. S. Public Health Service, will replace Dr. Garson as Chief of the Venereal Disease Control Section on August 1, 1956.

#### TUBERCULOSIS CONTROL SECTION

During the biennium the Tuberculosis Control Section conducted chest x-ray surveys in fifty-three counties; seventeen of these had been surveyed previously one time and one county had been previously surveyed twice. Colleges and State institutions surveyed are listed as follows: Wake Forest College, Wake Forest; University of North Carolina, Chapel Hill; N. C. State College, Raleigh; East Carolina College, Greenville; Appalachian Teachers College, Boone; St. Augustine College, Raleigh; Meredith College, Raleigh; Peace Institute, Raleigh; N. C. School for the Deaf, Morganton; State Hospital at Morganton, Morganton; State Hospital at Goldsboro, Goldsboro; State Hospital at Butner, Butner; State Hospital at Raleigh, Raleigh.



Personnel employed during the biennium consisted of twenty-six professional and clerical employees divided as follows:

Physicians (full time) . . . . .	1
Physicians (part time) . . . . .	2
Technicians for operating mobile x-ray units . . . . .	10
Clerks . . . . .	4
Nurses (part time) . . . . .	1
Supporting employees (Statistical and Laboratory) . . . . .	8

During the biennium, Section equipment consisted of six mobile x-ray units for taking the miniature screening films during surveys, one trailer which houses a 14 x 17 x-ray unit that is used in follow-up activities, one office trailer, two Chevrolet sedans, the General Electric x-ray machines on loan.

The budget of this Section for the fiscal years 1954-1955 and 1955-1956 was:

	1954-1955	1955-1956
Federal	\$115,000	\$107,500
State	\$33,324	\$33,390
	<hr/>	<hr/>
	\$148,324	\$140,890

It will be seen that the Federal budget has decreased by \$7,500 since 1954-55. The budget is barely sufficient to support the Section's activities, and a further decrease may result in curtailment of activities.

The cost (less depreciation of equipment) of the x-ray examination of one person for the biennium was \$0.61. This cost includes all expenses involved in rendering to the person x-rayed a final diagnosis and advice as to further treatment.

Section surveys show that for the fiscal year 1954-55 there were 5.1 persons in every thousand examined who had x-ray evidence of tuberculosis of the lung and for the first ten months in 1955-56 there were 6.3 persons in every thousand examined who showed such evidence; therefore, the number of persons who were placed on the alert against tuberculosis was quite large.

X-rays made in the field by Section units, x-rays interpreted by the Section for counties and other agencies, and those made by Section units on loan are tabulated below:

Total Number Screening Miniature X-Ray Films and Number Large Films  
Made in Follow-Up Activities

Miniature x-ray films made by Section units in the field	469,860
Large films estimated to have been made by Section units in follow-up activities in the field	6,184
Miniature films made by x-ray units on loan: (Duke Hospital, Union Memorial Hospital, Halifax County Health Dept.)	41,631
Miniature films read by the Section for other State agencies and County Health Departments	60,833
	<hr/>
Total	578,508

## OCCUPATIONAL HEALTH SECTION

The Occupational Health Section was without a medical chief from the beginning of the biennium, July 1, 1954, until April 1955, when the services of a medical officer, experienced in occupational health work were obtained. From June 2, 1955, the Section has been without engineering service. Throughout the biennium the mobile x-ray unit has continued the periodic chest x-raying of all employees engaged in the dusty trades. The activities of the Section, therefore, have been confined to only a small segment of the responsibility implicit in its name since it has functioned mainly in the control of the dusty trades. Even here its activities have been restricted since engineering and technical assistance and laboratory facilities have been sharply curtailed or entirely wanting during much of this biennium. Practically, its activities have been confined largely to x-ray surveys among workers in dusty trades for the purpose of detecting silicosis and asbestosis, and to the preparation of data on the victims of these dust diseases for compensation hearings. Limited facilities have thus determined a limited program.

A number of months ago it was recognized that the Section was not meeting the present needs and was in no position at all to assume the increasing responsibilities and initiative required by the rapid industrial expansion of our state. It was regarded as mandatory that a section be established with facilities and competence to meet these needs, and which would possess comparable standards to Occupational Health Departments in other states with similar problems.

Since the employment of a medical chief of the Section in April 1955, he has devoted a major portion of his time to the development of a program, now under way, which contemplates the following:

To increase medical, engineering and clerical personnel.

To develop adequate laboratory facilities for assessing various environmental hazards and toxic materials in industry.

To maintain present dusty trades program with (1) improvement in control of dust hazard (2) physiological evaluation of pulmonary disability for determining compensation (3) more rapid processing of material, and (4) much more field work and supervision.

To interest nearby medical schools in cooperative studies of various occupational health problems.

To form hospital connections permitting detailed study of patients presenting special problems.

To survey industries throughout the state for evidence of specific hazard and to survey such general problems as air pollution and radiation hazard.

To supervise the rehabilitation of disabled workers, particularly in the dusty trades.

To attempt to interest private industry, local health departments and local physicians in local occupational health problems.

During the biennium the following work load has been performed by the Section:

X-rays taken by mobile unit in dusty trades .....	6,903
X-rays taken in non-dusty trades .....	5,010
Employees issued work cards .....	10,395
Employees recommended to be removed from dusty trades .....	138
Employees recommended for further sanatorium studies .....	87
Employees with silicosis .....	52
First stage silicosis .....	17
Second stage silicosis .....	25
Third stage silicosis .....	10
Employees with asbestosis .....	7
First stage asbestosis .....	5
Second stage asbestosis .....	1
Third stage asbestosis .....	1
Other pathology .....	80
TB—all stages and arrested .....	24
Hearth pathology .....	54
Pneumothorax .....	1
Chronic bronchial asthma .....	1
Plants visited for x-rays .....	180
Silica plants .....	165
Asbestos plants .....	8
Non-dusty plants .....	7
Pre-employment x-rays studies .....	3,492
Medical case histories submitted to Industrial Commission .....	70
Supplementary medical case histories submitted to Industrial Commission .....	20
Court hearings attended by Section Chief .....	0
Testimony given in court hearings by Section Chief .....	0
Court hearings attended by member Advisory Medical Committee .....	59
Conferences (general) .....	23
Conferences held with Advisory Medical Committee .....	3
Conventions attended .....	3
Replacements of personnel .....	5

#### VETERINARY PUBLIC HEALTH SECTION

This section has the responsibility for planning and coordinating activities designed to eradicate or control those diseases of animals which are transmissible to man either by direct contact or indirectly through food products of animal origin or insect vectors. There are over eighty diseases of animals transmissible to man. A brief summary of the highlights of the activities in this Section follows:

**Rabies.** Rabies continues to be a serious public health problem. During the biennium, thirty-two counties requested and received assistance in organizing effective control programs. The Section Chief, upon request of local health officers, attended many conferences with boards of county com-

missioners to discuss means and methods of providing adequate control. Forty-six counties, representing over 60 per cent of the population, have appointed dog wardens to control the stray dog. Stray dog control is essential to effective rabies control and also provides protection for livestock and wildlife. During 1955, over 100,000 stray dogs were impounded by county dog wardens. An amendment to the dog warden law was sponsored by the State Board of Health and passed by the 1955 General Assembly making it possible for smaller counties to appoint dog wardens by supplementing dog tax funds with general tax funds. Statewide efforts to control rabies are producing results. Rabies in dogs has been reduced by 60 per cent during the biennium. The number of human antirabic treatments dispensed by the State Laboratory of Hygiene has been reduced from 837 in 1951 to 317 in 1955, or 62 per cent. This progress alone is saving the people at least \$50,000 annually in the cost of human treatments. A value cannot, of course, be placed on the mental anxiety, physical discomfort, and possible hazard that patients undergo during treatment. There were two human deaths from rabies during the biennium.

A serious outbreak of fox rabies occurred in Alleghany County in late 1954, causing great livestock losses (\$25,000), particularly cattle. Many humans were exposed to the bites of rabid foxes. The Section assisted county officials in organizing a fox trapping program which brought the epizootic under control, but not until it had spread to Surry and Wilkes counties.

A goal of this Section is to eradicate this deadly disease of man and animals from our state.

**Encephalitis.** In the summer and fall of 1955, a serious outbreak of arthropod-borne encephalitis occurred among horses and mules in eastern North Carolina. The encephalitides are a group of viruses having their reservoir in animals and birds and capable of causing a serious disease in man. The disease is transmitted by the bite of mosquitoes which were present last fall in unusually large numbers as a result of huge breeding areas created by recent hurricanes. Hundreds of horses died from this infection in 1955. Fortunately, only one human death was reported. The Section assisted in epidemiological investigations during the outbreak. Eastern type virus was isolated from the brains of several horses and pheasants, and western virus was isolated from mosquitoes in Bladen County. The latter finding is significant because this is the second time that western virus has been isolated in the eastern United States. In June 1956, the Section Chief initiated a survey to determine the status of encephalitis among horses during the summer in several eastern counties. Reports indicate that the presence of mosquitoes is greater in 1956 than ever before.

**Psittacosis.** The increased breeding, selling and exchanging of birds of the psittacine family has caused a great increase in human cases. Psittacosis is a pneumonia-like disease in humans usually following contact with infected parakeets. Epidemiological studies were carried out by the Section in fifteen counties following reports of human cases. Several aviaries were placed under quarantine and known infected birds were destroyed. The

treatment of infected parakeets and the source of infection from chickens and turkeys are complex unsolved problems which are being studied by the Section. Most of the 150 human cases now being studied have had contact with parakeets. The Section carried out a serological survey on 238 employees in poultry processing plants in 1955. The survey demonstrated that psittacosis virus had been present in these plants although there was no specific evidence of human illness.

**Anthrax.** Anthrax is a highly fatal disease of cattle, goats and sheep. In certain northeastern states anthrax presents a serious occupational hazard to industrial workers who contract the disease while handling foreign imported goat hair, hides and wool. In 1953, a large textile plant moved to North Carolina from Pennsylvania. Subsequently, several human cases have been reported among the employees of this plant. The Section Chief, through many conferences and scientific plant surveys, has assisted the local health department and plant management on this problem. A program has been developed which will give the employees maximum protection and minimize the possibility of contaminating the surrounding farms with anthrax bacteria. Without this program a two million dollar industry with a \$250,000 payroll might have been lost to the state.

**Leptospirosis.** Leptospirosis, a jaundice and meningitic disease of humans contracted from several species of animals, is prevalent in North Carolina. Over 400 blood specimens were submitted by physicians to the State Laboratory of Hygiene during the biennium. Of these, 109 were positive. Two human deaths were investigated and epidemiological studies were carried out on other cases. This disease is extremely complex as much remains unknown regarding the various sources and modes of infection from animals.

**Other Diseases.** Several other human disease problems having their source of infection in animals were brought to the attention of the Section Chief. Among these were brucellosis, tularemia, trichinosis, ringworm, tuberculosis and Rocky Mountain spotted fever.

**Meat Inspection.** Advice and consultation were given to several local health departments concerning the inspection of red meat and poultry for wholesomeness. With the assistance of the Institute of Government staff, a meat inspection ordinance was prepared for Iredell County.

**Rendering Plant Inspection Committee.** The Section Chief represented state Board of Health on this Committee, authorized by the 1955 General Assembly to inspect rendering plants. Several plants were inspected and approved.

**General Activities.** In addition to the above activities, the Section Chief participated in several seminars and lectures at the School of Public Health of the University of North Carolina, the Bowman Gray School of Medicine and the Duke University School of Medicine. Numerous talks were given during the biennium before civic clubs, wildlife clubs, medical societies, veterinary societies, and official and voluntary health agencies. The Section Chief was the author of papers published in scientific journals on leptospirosis and psittacosis. The Section Chief was a participant in a

series of one-day conferences on *Animal and Insect Borne Diseases Transmissible to Man*, held in five cities throughout the state for local health department sanitarians. Two hundred and fifty-seven sanitarians and health officers attended. The Section Chief attended three out-of-state meetings during the biennium: A Regional State Rabies Conference at Louisville, Kentucky; the National Association of State Public Health Veterinarians meeting at Atlanta, Georgia, and the Southern Branch, American Public Health Association at Tulsa, Oklahoma. The Section Chief is serving as President and Vice-President, respectively, of the latter two organizations.

**Performance and Budget.** The Veterinary Public Health Section was organized five years ago with Federal grant-in-aid funds. These funds have been drastically reduced by Congress in recent years. The State makes no budget appropriation for the activities of this Section. The present budget for this Section is approximately \$11,000 annually. The staff consists of a public health trained veterinarian and a secretary. In order to continue and to expand the successful rabies control program and the pioneering work being done on other animal diseases which are a threat to the public health, a dependable source of funds is needed. It is urgent, therefore, that state funds be appropriated to support these activities during the 1957-59 biennium. This would seem to be a sound investment, considering the fact that achievements in rabies control made possible through activities of this Section are saving the people five times the amount of the total budget annually. The interest shown in this field of public health by our citizens is most stimulating. The need to produce more foods of animal origin in order to feed an ever increasing population will mean greater animal-human contact and doubtless will present more complex problems in the field of animal diseases transmissible to man.

#### ACCIDENT PREVENTION SECTION

Home and farm accidents in North Carolina in 1955 claimed the lives of 752 residents of the state, to rank as the seventh leading cause of death for all ages. Almost one out of every three fatal accidents in the state occurred in a home, on a farm, or in a resident institution.

As in most other states in the United States, accidents were the leading cause of death in the age groups from one to four years, with the preponderance of fatal accidents occurring in the home, while in the group from five to fourteen years fatalities were about equally divided between the home and highway as to occurrence.

In the age group above sixty-five years, almost four out of five fatal accidents were recorded as home accidents. It is for these two age groups—the very young and the old—that home accidents present the greatest threats to life. The impact of home accidents is felt by all members of the household, however, since it is the wage-earner who must bear the expense of hospitalization and medical care, and the homemaker whose tasks may be complicated by the necessity of caring for a handicapped or bedridden child or grandparent.

Information as to the number of non-fatal injury-producing accidents occurring throughout the state is not available. Utilizing National Safety

Council estimates, one may assume that the non-fatal accident toll for accidents serious enough to disable for at least twenty-four hours was 75,000 to 100,000 in 1955. Based on estimates, it is calculated that from 2,500 to 3,000 persons per year incur some degree of permanent disability as a result of home and farm accidents.

In an effort to combat the home and farm accident problem, the Accident Prevention Section has conducted activities with the three following objectives in mind:

1. To introduce the concepts of home and farm safety to all public health workers in the state and to assist them in assuming a role in accident prevention through pre-service and in-service education, short courses, institute and other educational methods.

2. To aid health departments and other community agencies in arousing public awareness to the magnitude of home and farm accidents as a health problem through community organization, utilization of mass media, and other techniques of health education.

3. To contribute to the sum total of existing knowledge as to the causes and techniques for prevention of home and farm accidents and as to the methodology by which public health agencies may approach this condition. This is being done through special epidemiology studies, field trial of safety techniques, and other operations in the area of practical research.

During the past biennium, the staff of the Section has met with local health department staffs in forty-three counties to assist them in a variety of home accident prevention activities. In addition, all local departments have received, periodically, home safety educational materials.

Three regional one-day institutes—at Goldsboro, Wilmington, Salisbury—were held for local public health workers. Public health personnel from seven to nine counties attended each institute.

In July 1954, the Section sponsored, in connection with the UNC School of Public Health, two one-week short courses at the University. In 1955 the two courses were combined, and the Section sponsored the one-week course. Some sixty public health workers in North Carolina received intensive home safety training in these summer short courses. A third short course will be held in July 1956.

The Section has conducted a number of joint projects with the N. C. Agricultural Extension Service. In July 1955, the staff taught a home safety course for farm people and county extension workers at the annual Farm and Home Week at N. C. State College. The course consisted of four one-and-one-half hour sessions. Leadership training courses for Home Demonstration Club Health and Safety Chairmen were taught by staff members in six counties. County farm and home agents in sixteen counties were given assistance in planning home and farm safety exhibits for 4-H and Home Demonstration Club booths at county fairs. Fourteen home agents were given assistance in planning demonstrations for local 4-H and Home Demonstration Club meetings.

Staff members have been guest lecturers on home safety to student groups at the University of North Carolina School of Public Health, N. C. College, Duke University School of Nursing, Rex Hospital School of Nursing, and

the University of North Carolina School of Nursing. In addition, the Section has provided appropriate materials to these and other schools and colleges.

Joint activities between the Section and the N. C. Congress of Parents and Teachers and local parent-teacher organizations have been numerous. The Section made available two child safety leaflets which were particularly appropriate for use with PTA groups. The State PTA office distributed over 40,000 copies of each to local groups. PTA study courses on child safety were taught in twelve localities by Section staff members. In addition, Section staff members presented safety programs at numerous local PTA meetings.

The Section has worked very closely with other safety organizations in the state. For the past two years, a member of the Section staff has served on the program committee of the N.C. Industrial Safety Conference. The Section has also sponsored the Community Farm and Home Section of this conference. Sponsorship includes planning and presenting program at the Section meeting.

A member of the Section staff served as a member of the program committee of the three-day N. C. Safety School. A paper on home safety was presented at the first session of the School by a Section staff member.

The Section has participated in several accident morbidity studies. Staff members assisted agricultural extension workers in Anson County in conducting a study carried out by 4-H Club members in a selected population group of 1,895 rural people.

The staff also participated in a non-fatal accidental injury study carried out by the medical societies in three North Carolina counties—Sampson, Jackson, and Cleveland. Over 50 per cent of the members of the medical profession in the three counties participated in the study; accident data were also compiled by dentists, public health nurses, and members of the Farm Bureau, Grange, and Home Demonstration Clubs.

Members of the Section staff served with faculty members of the UNC School of Public Health in providing consultation and leadership to a group of graduate public health students conducting a community accident survey in Randolph County.

The Section has produced statistical information and appropriate safety educational material and has made it available to every interested agency, organized group, and individual. Press, radio, and television have been used to arouse public interest in the home and farm accident problems. Exhibits have been shown at nearly every meeting of professional organizations as well as at local and state fairs. There is scarcely a group in North Carolina that has not been reached in some way by the Section's activities during the past two years.

As extensive as these activities seem, thus far only a foundation has been laid for effective home and farm accident prevention activities. Since its establishment, this entire activity in North Carolina has been supported by a special grant from the W. K. Kellogg Foundation of Battle Creek, Michigan. These funds, totaling over \$95,000, will be exhausted by June 30, 1957. Accidents, along with heart disease and cancer, have emerged as



one of the major health problems of the century, and it seems imperative that activities be continued against home and farm mishaps which claim almost two lives daily in this state. Funds from the state will be necessary if the needless toll of human suffering and loss of life now resulting from accidental death and injury is to be halted.

## SANITARY ENGINEERING DIVISION

The activities of the Sanitary Engineering Division embrace the non-medical programs of the State Board of Health and are directed mainly to the community or area rather than the individual because of their wide application. Since its creation by the General Assembly in 1919, the Division has had as its objective the improvement of environmental conditions that affect the health of the people. To accomplish this, the personnel works with municipal and county officials and with other State Agencies to co-ordinate and develop sanitation programs and in the enforcement of State laws and regulations.

Activities governed by State Laws and Regulations include the following:

1. General supervision and inspection of public water supplies.
2. Review and approval of plans for the construction of water purification and sewage treatment plants.
3. Sanitation of public lodging and eating places and of private and public hospitals and institutions.
4. Control of malaria and other insect borne diseases.
5. Sanitation of meat markets, abattoirs, poultry processing plants and frozen food locker plants.
6. Enforcement of State Privy Law.
7. Enforcement of State Bedding Law.

In addition to above legal activities, the Division engages in the promotion of safe milk supplies, assists with training of local sanitarians, development of local sanitation ordinances, and acts as consultant to local health departments and other State Agencies on problems relating to sanitary engineering.

### Administration and Legislation

The staff consists of a total of thirty-three persons, including sanitary engineers, sanitarians, entomologists, bedding inspectors, and secretaries. One new position for a bedding inspector was established during the biennium. We have experienced an unusually high turnover in secretarial employees, which has interfered with office routine and execution of the program since these new employees had to be trained for their positions.

Much time was devoted to legislative committee work in connection with bills sponsored or supported by the State Board of Health before the 1955 General Assembly. Bills relating to water resources, stream pollution, poultry inspection, and amendments to the cafe and bedding laws were considered. Two important educational and instructional bulletins were prepared and distributed on the subjects of *Mosquitoes and Their Control* and *The Operation of Water Filtration Plants of the Mechanical Gravity Type*.

The usual assistance was rendered other State Agencies, including the Department of Public Instruction, Department of Public Welfare, Highway and Public Works Commission, Hospitals Board of Control, Department of Conservation and Development, and Medical Care Commission. Special assistance was given the Prisons Department in working with that agency to improve the sanitation of all prison camps.

During the biennium the State Board of Health moved into new quarters in the Cooper Memorial Health Building.

The primary activities carried on by the personnel of the Division during the 1954-56 biennium are enumerated below according to working sections.

### ENGINEERING SECTION

Of particular significance has been the great amount of improvements made to public water and sewerage facilities. The engineers have devoted much of their time to this activity, but more engineers are needed to meet the demands for service being received from city officials, local health agencies, and consulting engineers. During the biennium 180 sets of plans for water and sewerage improvements were approved by this office. Contracts were let for a total of 205 projects amounting to \$24,806,733, which were as follows:

	NUMBER	COST
New Water Systems and additions	67	\$6,071,141
New Water Plants and additions	28	4,269,430
New Sewerage Systems and additions	43	4,807,834
New Sewage Plants and additions	20	5,649,021
Water and sewer projects non-classified	35	4,009,307

We now have a total of 490 water supplies under supervision and 284 communities in the State have sewerage systems.

This office supplied 216 plans for institutional type sewage treatment plants to school officials and others.

Close relationships have continued with the Stream Sanitation Committee in the consideration of sewage treatment facilities throughout the State. One problem demanding attention is the increasing use of radioactive materials in industry and the need for legislation and supervision over the use and disposal of wastes from this material. An engineer is needed to supervise this work and to act as consultant for the Board of Health and other agencies. A request is being made for the establishment of this position.

A number of communities suffered serious water shortages during the biennium and the engineers worked with the towns in relieving these shortages and assisting with emergency water supplies.

Because of four hurricanes, which occurred during this biennium, considerable time was devoted by the entire staff in cooperation with the State Office of Civil Defense and with the communities affected in restoring water and sewerage services and in general sanitation and clean-up operations. Approximately three months' time was consumed with the activities and interfered greatly with our normal activities.

During the biennium fluoridation of public water supplies was started in Albemarle, Gastonia, Mooresville, Thomasville and Wilmington. The total number of towns now adding fluoride is twenty-three.

## SANITATION SECTION

The personnel of this section, in addition to routine activities, engaged in a number of special activities of considerable significance. Time was devoted to training of local sanitarians and assisting local health departments, as well as other State Agencies, with matters relating to environmental sanitation. In-service training courses for local sanitarians were begun during the biennium. Assistance was rendered local health officers in the development of local sanitation ordinances and codes.

Milk sanitation required a great deal more time than in the past. Special equipment, new methods, and changes in the U. S. Public Health Service Milk Ordinance, under which the counties operate, demanded more time of our two men assigned to assisting local health departments with milk problems. Additional men will be required to render the service requested of us, and we are asking the General Assembly for more assistance on this program.

Special attention has been given to the Shellfish Sanitation Program and our ratings from the Public Health Service during this biennium have been very high.

Surveys were made of migrant labor housing facilities and effort was put forth to secure better sanitation at these migrant labor camps. The Governor appointed a Migrant Labor Committee on which this Division has representation. The Committee is attempting to bring about better health and work conditions in these camps. Evaluation of local sanitation programs was given more attention during the biennium in an effort to assist the local health departments in developing more comprehensive and satisfactory sanitation programs.

Concentrated effort was put forth to improve prison camp sanitation at the request of the Division of Prisons and one man was assigned practically full-time to this activity.

Assistance was also given a number of towns and counties in the development of local plumbing codes.

## INSECT AND RODENT CONTROL SECTION

Because of the hurricanes, which occurred during the biennium, the mosquito problem increased immensely. The greater portion of the time of our staff directed and worked with the Salt Marsh Mosquito Commission authorized by the 1955 General Assembly. Studies were made to determine cause and location of breeding and special control measures were inaugurated. Funds for this work were made available through the Governor from the Emergency and Contingency Fund, and also from the Federal Civil Defense Administration. This Commission is to present a special report of their studies and findings.

The surveillance program on malaria control was continued and expanded to cover the VEPCO impoundment at Roanoke Rapids. Routine entomological surveys for local health departments were continued.

Assistance was also given a number of municipalities on the location and operation of sanitary landfills for disposal of garbage and refuse.

Time was also devoted by this section in the re-write and study of the Bedding Law and in cooperative projects with the bedding manufacturers on the sterilization of used bedding. The Bedding Inspectors made routine inspections of all manufacturing and sterilizing places and also inspected the retail outlets for bedding in enforcing this statute.

A numerical tabulation of some of the more important activities is attached.

### Numerical Summary of Activities ENGINEERING

Public water supply inspections	1,153
Well sites examined and approved	123
Water samples collected and examined	347
Special investigations conducted (water supplies)	129
Sewerage system inspections	711
Sewerage system inspections	244
Special investigations (sewerage systems)	127
Sand analyses	93
Water supply plans approved	70
Sewage works plans approved	60
Swimming pool plans approved	5
Sewage plant plans furnished	216
Swimming pool plans furnished	18
Outdoor bathing places investigated	9
Sources of water supply examined for interstate carriers	38
Watering points examined	75
FHA developments investigated	128
Special conferences with engineers, city and county officials	1,765

### SANITATION

Milk plant inspections	313
Dairy farm inspections	1,890
Milk surveys completed	45
Milk plant plans reviewed	18
Special investigations (milk)	13
Conferences regarding milk	882
Foodhandling establishments inspected	2,773
School lunchroom inspections	309
Abattoir and meat processing plant inspections	351
Meat market inspections	765
Frozen food locker plant inspections	84
Poultry plant inspections	90
Plans reviewed for foodhandling establishments	648
Foodhandler schools held	23
Private water supply inspections	1,966
Private sewage disposal inspections	994
Privy inspections	1,586

Summer camp inspections .....	30
Institutions inspected .....	653
Hospital plans reviewed .....	75
Hospital plans approved .....	31
Public school inspections .....	215
Hotel and lodging places inspections .....	250
Complaints general sanitation .....	419
Special investigations .....	81
Special meetings .....	812
Shellfish packing plants inspected .....	1,654
Retail seafood markets inspected .....	235
Patrol inspections of restricted waters .....	190
Plans distributed .....	172
Number of court cases .....	17

### INSECT AND RODENT CONTROL

Impounded water inspections .....	2,694
Applications received for permits to impound water .....	2,511
Impounding permits issued .....	2,148
Communities assisted in planning or supervising landfills .....	51
Insect and rodent surveys made .....	390
Arthropods identified .....	9,126
Inspections of bedding factories .....	12,282
Inspections of retail bedding establishments .....	8,533
Pieces of bedding removed for sale and/or condemned .....	4,730
Municipal and county board meetings attended .....	101

## STATE LABORATORY OF HYGIENE

In submitting the report of the State Laboratory of Hygiene for the biennial period July 1954-June 30, 1956 attention should be called to the fact that the statistical table, reporting examinations made, has been changed considerably from comparable tables for previous biennial reports. These changes were made primarily for the purpose of depicting more accurately the services rendered to physicians, health departments, other state institutions and hospitals. In some instances, particularly in the matter of *Miscellaneous Examinations*, we have been unable to redistribute the numbers which we computed for the biennial period—1952-1954. With few exceptions, we feel that the information presented for the current biennium tells a true story and can be compared fairly and intelligently with the report submitted for 1952-1954 biennial period.

On several occasions we have called attention to the fact that the work at the State Laboratory of Hygiene presents a reasonably accurate picture of the infectious disease problems of the State of North Carolina. For instance, when *Typhoid Fever* was a grave public health problem in North Carolina, the laboratory examined large numbers of specimens as an aid to the diagnosis of this disease. In 1954-56 we have only 950 specimens of blood for Agglutination Tests for Typhoid and Para Typhoid; whereas, in the previous biennial period we had 5,838. The smaller number for the present biennium represents definite improvement in the hazards presented by this particular group of diseases. Of the 950 specimens only 29 gave reactions of a titer sufficient to be of any significance.

*Blood Cultures for Salmonella* also showed a marked reduction—4,113 for 1952-1954 compared to 3,279 for 1954-1956, notwithstanding the fact that during the current biennium we had several extensive outbreaks of *Salmonella* food poisoning. In only 17 of these 3,279 blood cultures were *Salmonella* of any type isolated.

Diligence on the part of the health departments did result in more specimens of *Feces and Urine for Culture* in an effort to identify carriers of *Salmonella*—6,431 such specimens in 1954-1956 as compared with 4,194 for the previous biennium.

Specimens for *Undulant Fever Agglutination Tests* decreased from 6,872 to 7,644—with only 24 significant reactions.

*Tularemia Agglutination Tests* decreased from 4,655 in the previous biennium to 3,854—of which 42 were considered to be positive.

Specimens for *Weil-Felix Reaction for Endemic Typhus and Rocky Mountain Spotted Fever* also decreased from 9,080 in the previous biennium to 7,644—with only 24 significant reactions.

Specimens for *Heterophile Antibody Test* increased slightly—from 2,699 in the previous period to 3,503 for 1954-1956.

A new activity for the current biennial period was *Leptospiral Agglutination Tests* for which we examined 1,740 specimen—189 of which were considered to yield significant reactions.

When we made our report for the fiscal year 1952-1954 we called attention to the fact that the plan of treatment of *Gonorrhea* had changed, as indicated by the culture of the organisms as an aid to the diagnosis of the disease. This trend is further reflected in the current biennial period—since we reported only 236 specimens for culture as compared with 591 for the previous biennium. In only 5 instances was the gonococcus isolated and identified during the two year period just past.

There was also a decrease from 7,081 specimens for microscopic examinations for *Gonorrhea*—1952-1954 to 6,756 during the current biennium—1,212 showing typical gram negative intracellular diplococci.

Interest in *Intestinal Parasites* has decreased very little—36,769 specimens in 1952-1954 as compared with 34,746 in 1954-1956 of which 4,803 yielded one or more intestinal parasites.

Fear of *Rabies* has not changed greatly in North Carolina, although the disease is considerably less prevalent. In 1952-1954 we received 1,662 animal brains to be examined for this disease; whereas, in the current biennium we received 1,590 of which 220 were considered to be from rabid animals. In the previous biennium 273 were from rabid animals. It is our policy when we cannot find typical Negri bodies in the brain of an animal which bit a human being to inoculate mice. In the period 1954-1956 — 422 such inoculations were made; whereas, in the previous biennium—212 inoculations were made.

Our aids to the diagnosis of Tuberculosis are the *Microscopic Examinations for Acid Fast Organisms of typical Morphology*, and *Cultures*. There is insignificant change in the number of specimens of sputum examined microscopically but there is a considerable increase in the number of specimens cultured. This does not reflect an increase in the prevalence of the disease but rather a need for laboratory service in connection with the modern treatment of tuberculosis.

North Carolina's campaign against *Diphtheria* is continuing to reduce the number of patients suffering from this disease; consequently, the number of specimens examined by the laboratory are reduced from 3,611 for the period 1952-1954 to 2,356 in 1954-1956.

For *Vincent's Angina* we examined approximately the same number of specimens for each of the biennial periods.

*Malaria* which was formerly a scourge in this State has become practically non-existent. We examined only 418 specimens of blood during the current biennium compared with 731 for the previous period. In only two specimens were parasites found during the period 1954-1956.

*Microbiological Analyses* represents a new activity in the Laboratory in its efforts to serve the State in the field of water biology.

*Sanitary Examinations* (Cultures), is another activity included in the work for the period 1954-1956. Comparable work on a smaller scale was included under the heading "Miscellaneous" in the previous biennium.

The same explanation applies to the activity—*Shellfish Analyses*.

Increased activities by the Chemistry Group including the *Examination of Water*; specimens from Stream Sanitation, Industrial Hygiene, Sanitary Engineering, and others accounted for 73,634 laboratory examinations in



the period 1954-1956 as compared with 27,070 during the previous biennial period.

*Serological Tests for Syphilis* from the standpoint of the number of specimens examined continues to be the major activity of the Laboratory. Although the number of specimens examined for the period 1954-1956 is smaller—688,436, than the number for 1952-1954 — 723,635, it is thought that the work for the current biennium is more productive. Since the number of workers assigned to this Group were markedly reduced by the the biennial period to restrict the number of specimen containers sent to any health department, physician, hospital or State institution, so that our Serology Group would not be overwhelmed with specimens. This action probably resulted in fewer routine surveys and more careful selection of persons from whom specimens were taken.

*Complement Fixation Tests for Virus and Rickettsial Diseases* was a new activity in the period 1952-1954 and a routine procedure in the period 1954-1956, as more physicians become familiar with this service and used it more frequently. Accuracy in the diagnosis in these rather infrequent diseases—was in our opinion enhanced. Those who are interested in this particular activity of the Laboratory should consult the statistical table as the number of these examinations would be too numerous to cover in a written report.

Earlier we mentioned the fact that we had endeavored to improve our statistical presentation of the examinations made. We not only endeavored to use more descriptive terminology but to classify routine activities that were formerly included under the term "Miscellaneous." For this biennial period we are including under "Miscellaneous Examinations" only those activities which are not routine procedures and are activities available only to certain institutions or public health activities. The number of such examinations for 1954-1956 were 80,874 but that number included some activities which we consider routine.

The total number of *Laboratory Examinations* made for the biennial period were substantially greater in 1954-1956 than in 1952-1954 — 986,742 as against 970,547.

*Biological Products*, their preparation, purchase and distribution in-chase and distribution constitute an important activity of the State Laboratory of Hygiene.

During the past two biennial periods we have noted a growing trend for the local health departments and physicians of the State to use *Triple Antigen for Diphtheria, Tetanus and Pertussis (Whooping Cough)* immunizations instead of using Diphtheria Toxoid, Tetanus Toxoid and Pertussis Vaccine as separate antigens. This trend has continued during the present biennial period. There has been an increase in the use of Triple Antigen from 313,320 injections in 1952-1954 to 358,020 injections during the current biennium.

There has been a corresponding reduction in *Diphtheria Toxoid* and *Pertussis Vaccine*.

In the case of *Tetanus Toxoid*—51,910 injections were distributed in 1954-1956, a sizeable increase over the number—34,200 in 1952-1954. This

is probably explainable because more adults are being immunized against tetanus than in previous years.

There has been a decrease in the amount of *Smallpox Vaccine* used, although this decrease is not alarming, since we are continuing to distribute about three times as much Smallpox Vaccine as is needed to immunize every baby born in the State and about 50,000 older persons each year. Therefore, if the Vaccine distributed is properly used, we have a population well immunized against Smallpox.

The decrease in the prevalence of *Typhoid* is reducing the amount of *Typhoid Vaccine* which we distribute. Had it not been for Hurricanes Hazel, Connie and Dianne this decrease would have been more marked. We were, however, able to supply all the typhoid vaccine needed to deal with the emergencies created by these hurricanes.

Th decrease in prevalence of *Rabies* was reflected in the decrease in the number of *antirabic treatments*.

The same statement is true for *Diphtheria Antitoxin*. However, the increased immunization against Tetanus has not resulted in comparable decreases in the amount of *Tetanus Antitoxin* distributed.

It is probably a note of historical worth to mention that this is probably the last time Neoarsphenamine or Sulpharsphenamine will occur in this report. These products, formerly distributed in considerable amounts for the treatment of syphilis, are no longer used, since they have been replaced, primarily with Penicillin.

Some of the *Gamma Globulin* which we distributed in this biennium, as well as in the previous biennium, came from the National Foundation for Infantile Paralysis. The American Red Cross has supplied us with a portion of our Gamma Globulin throughout all the years which we have distributed it and for the past year has supplied all of this material which has been made available to us.

The *Polio-myelitis Vaccine* which the Laboratory is distributing is purchased with Funds appropriated by Congress and made available to the Division of Epidemiology. This Vaccine was shipped from the manufacturer to the Laboratory and distributed upon requisition through the Division of Epidemiology. A more detailed explanation of allocation and use of this product will probably be contained in the report of that Division.

Our *Financial Disbursements* need little explanation. Our Item—Supplies and Materials is more than \$5,000 less for 1954-1956 than in 1952-1954. All of this decrease is due to the lower cost of biological products. All other supplies and materials have increased markedly.

The increase in *Postage, Telephone and Telegrams* is primarily due to the increase in volume of work done by the Laboratory as well as the emergency nature of the work.

Attention should be called to the fact that the Laboratory came very close to complying with the directive of the General Assembly that *printing costs* should be cut 20%.

The Item—*Light, Power and Water*, also is slightly increased—probably due to the increase in the water rates of the City of Raleigh.

It is now more than 16 years since the Laboratory began occupying its present quarters. It would seem natural, therefore, for our Item—*Repairs and Alterations* to increase.

The *Total Expenditure* of State funds during the biennial period 1954-1956 was \$522,144.00 as compared with \$500,759.00 in the previous biennium. Since our increase in Salaries of Staff alone is in excess of more than \$27,000 in 1945-1956 over 1952-1954, it is apparent that we have lived on a very tight budget, since nearly every item purchased with the exception of *Biological Products* called for a substantial increase in price.

In spite of these handicaps, we have been able to increase the service which we have rendered to physicians, local health departments, general hospitals, and other State Institutions. We have endeavored and think that we have succeeded in keeping our laboratory procedures up to a high standard of performance. The spirit of our staff has been most commendable. They are genuinely interested in increasing the quantity as well as the quality of service which we render to the people of North Carolina.

# STATE LABORATORY OF HYGIENE, RALEIGH, NORTH CAROLINA; REPORT OF EXAMINATIONS MADE

	July 1, 1954-June 30, 1956			July 1, 1952 June 30, 1954	
	Posi- tive	Nega- tive	Unsatis- factory	Total	Total
<b>AGGLUTINATION TESTS:</b>					
Typhoid and Para Typhoid	29	921	....	950	5,838
Undulant Fever	20	5,421	....	5,441	6,872
Tularemia	42	3,812	....	3,854	4,655
Weil Felix, Typhus & Rocky Mountain Spotted Fever	24	7,620	....	7,644	9,080
Heterophile Antibody	258	3,245	....	3,503	2,699
Leptospiral	189	1,551	....	1,740	.....
Other Specimens	....	....	131	131	294
<b>BLOOD CULTURE</b>					
(Salmonella)	17	3,111	151	3,279	4,113
<b>FECES AND URINE</b>					
CULTURES	743	5,655	33	6,431	4,194
<b>GENERAL BLOOD</b>					
CULTURE	....	763	....	763	930
<b>CULTURES FOR</b>					
CONOCOCCUS	5	222	9	236	591
<b>GONOCOCCI</b>					
(Microscopic)	1,212	5,482	62	6,756	7,081
<b>INTESTINAL</b>					
PARASITES	4,803	29,607	336	34,746	36,769
<b>RABIES</b>					
(Animal brains)	220	1,342	28	1,590	1,662
<b>ANIMAL INOCULATIONS:</b>					
Mouse Test for Rabies	22	400	....	422	212
Guinea Pig Test for TB	26	281	....	307	1,270
<b>TUBERCULOSIS ACID FAST STAINS</b>					
(Microscopic)	1,744	36,069	1,031	38,844	40,988
<b>TUBERCULOSIS CULTURES</b>					
(Sputum)	250	6,759	213	7,222	4,627
DIPHThERIA CULTURES	121	2,229	6	2,356	3,611

STATE LABORATORY OF HYGIENE, RALEIGH, NORTH CAROLINA;  
REPORT OF EXAMINATIONS MADE

	July 1, 1954-June 30, 1956			July 1, 1952 June 30, 1954	
	Posi- tive	Nega- tive	Unsatis- factory	Total	Total
VINCENT'S ANGINA					
(Microscopic) . . . . .	754	1,189	.....	1,943	2,016
MALARIA (Microscopic) . . . . .	2	396	20	418	731
DARKFIELD (Microscopic) ..		9	7	16	20
MICRO-BIOLOGICAL ANALYSES					
(Microscopic) . . . . .	.....	.....	.....	285	.....
SANITARY ANALYSES					
(Cultures) . . . . .	4,886	21,155	1,708	27,749	.....
SHELLFISH ANALYSES					
(Cultures) . . . . .	.....	.....	.....	16,715	.....
CHEMISTRY:					
Water Group . . . . .	60,042				
Stream Sanitation . . . . .	13,159				
Industrial Hygiene . . . . .	127				
San. Engineering . . . . .	234				
Other . . . . .	72			73,634	27,070
SEROLOGICAL TESTS FOR SYPHILIS					
Total Number of Tests . . . . .				688,436	723,635
Qualitative Blood . . . . .	623,885				
Quantitative Blood . . . . .	47,175				
Spinal Fluid VDRL . . . . .	4,063				
Spinal Fluid					
(Total Protein) . . . . .	3,313				
COMPLEMENT FIXATION					
<i>Rickettsia</i>					
Rocky Mt. Spotted Fever . . . . .				274	90
Typhoid (Murine) Human				244	91
(Rat Blood)					
Rickettsial Pox . . . . .				201	79
Q Fever . . . . .				170	13
<i>Viruses</i>					
Eastern Equine Encephalomyelitis				302	52
Western Equine Encephalomyelitis				297	51
St. Louis Encephalitis . . . . .				208	52
Japanese B. Encephalitis . . . . .				57	50
Lymphocytic Choriomeningitis . . . . .				265	60
Mumps . . . . .				359	67
Psittacosis . . . . .				1,270	79
Influenza (P R 8) . . . . .				75	10
Influenza (F. M. 1) . . . . .				70	10
Influenza (Lee) . . . . .				75	10
Lymphogranuloma Venereum . . . . .				147	1
MISCELLANEOUS EXAMINATIONS:					
Cultures . . . . .	6,047				
Cancer Cytology . . . . .	24,731				
Microscopic . . . . .	3,534				
Other . . . . .	13,005			47,317	80,874
TOTAL				986,742	970,547

### STATE LABORATORY OF HYGIENE DISBURSEMENTS

	July 1, 1954-June 30, 1956	July 1, 1952 June 30, 1954
Salary—Director	\$ 20,545.92	\$ 20,006.96
Salaries & Wages—Staff	357,093.30	325,602.20
Supplies & Materials	74,025.48	79,665.69
Postage, Telephone & Telegrams	19,760.28	18,353.84
Travel Expense	1,848.83	1,737.99
Printing & Binding	3,761.52	4,684.03
Motor Vehicle Operation	1,933.60	1,466.35
Light, Power, Water	6,964.26	6,531.15
Repair & Alterations	5,302.46	4,109.73
General Expense	149.76	207.71
Insurance & Bonding	15.79	243.78
Equipment	1,851.79	3,121.08
Elevator Maintenance	1,486.62	1,330.60
Debt Service	24,610.00	24,410.00
Water Analysis Special	2,750.00	5,500.00
Workmen's Compensation	45.00	511.50
Motor Purchase		3,476.52
Imprest Cash		200.00
<b>TOTAL</b>	<b>\$522,144.61</b>	<b>\$500,759.13</b>

### STATE LABORATORY OF HYGIENE RECEIPTS

Toxoid	\$ 23,647.01	
Pertussis Vaccine	701.30	
Autogenous Vaccine	130.00	
Silver Nitrate	4,212.00	
Antirabic Treatments	3,478.22	
Diphtheria Antitoxin	611.40	
Tetanus Antitoxin	4,394.65	
Dick Test	71.70	
<b>TOTAL</b>	<b>\$ 37,246.28</b>	<b>\$ 39,392.96</b>
Water Tax	41,371.25	45,404.90
Specimen Outfits	29,727.99	28,594.56
Special Fees	696.00	1,057.30
Miscellaneous	769.30	517.22
Animals	1,044.35	2,710.95
Wool	253.52	266.91
Timber	136.50	
Pulp Wood	901.49	
<b>TOTAL</b>	<b>\$112,146.68</b>	<b>\$117,944.80</b>
<b>REFUNDS</b>		<b>156.53</b>
<b>NET TOTAL</b>	<b>\$112,146.68</b>	<b>\$117,788.27</b>

## FINANCIAL STATEMENT

	July 1, 1954-June 30, 1956	July 1, 1952 June 30, 1954
TOTAL EXPENDITURES .....	\$522,144.61	\$500,759.13
TOTAL RECEIPTS .....	112,146.68	117,788.27
APPROPRIATION .....	\$409,997.93	\$382,970.86
<b>STATE LABORATORY OF HYGIENE, RALEIGH, NORTH CAROLINA—REPORT OF BIOLOGICALS DISTRIBUTED</b>		
Diphtheria Toxoid (Alum Precipitated)		
Injections .....	8,091	24,767
Diphtheria Toxoid (Ramon)		
Injections .....	600	700
Combined Diphtheria Toxoid and Pertussis Vaccine		
Injections .....	6,000	33,180
Tetanus Toxoid		
Injections .....	51,910	34,200
Combined Diphtheria-Tetanus Toxoid		
Injections .....	23,250	28,100
Triple Antigen		
Injections .....	358,020	313,320
Schick Tests for Diphtheria		
Tests .....	17,900	33,300
Schick Control for Diphtheria		
Tests .....	3,750	5,270
Smallpox Vaccine		
Individual Tests .....	318,606	352,217
Typhoid Vaccine		
10cc Vials .....	10,895	13,988
50cc Vials .....	5,136	5,286
100cc Vials .....	422	1,040
Rabies Treatments .....	728	1,039
Pertussis Vaccine		
Treatments .....	1,250	2,565
Autogenous Vaccine .....	28	70
Diphtheria Antitoxin		
10,000 Unit Packages .....	581	979
20,000 Unit Packages .....	948	1,250
Tetanus Antitoxin		
1,500 Unit Package .....	7,491	8,814
20,000 Unit Package .....	209	222
Dick Test for Scarlet Fever .....	680	875
Nearsphenamine & Sulpharsphenamine		
0.6 Gram Ampules .....		328
The following are furnished to the Laboratory by the American Red Cross and Distributed Free of Charge		
Immune Globulin		
CC .....	137,072	139,841
Division Epidemiology (Funds from USPHS)		
Salk—Polio Vaccine		
CC .....	802,539	

## THE DIVISION OF ORAL HYGIENE

The Division of Oral Hygiene recognizes the continued need and urgency of finding and promoting the most effective measures for improving the dental health conditions of the people, especially the children, of North Carolina. Tooth decay is still our number one physical defect. A brief survey of dental health needs reminds us that in our State we have, in round figures, 1,000,000 children of school age. A survey made some years ago showed 85 per cent of the children to be in need of dental attention, while 55 per cent had never visited a dental office. We believe that lower percentages prevail today. Even so, the task is overwhelming. *Prevention* offers the only solution. It is generally conceded that this can be accomplished by providing dental health education programs for children and their parents. Such a program, we believe, should include:

1. Education to appreciate good dental health and to know the accepted protective measures.
2. Motivation to assume personal responsibility for dental health.
3. Early detection and correction of dental defects.
4. Promotion of preventive measures, such as, the fluoridation of municipal water supplies and the topical application of sodium fluoride to the children's teeth.

Before giving a report of the Division's progress toward the accomplishment of these objectives something of the *modus operandi* should be pointed out. The Division of Oral Hygiene has a staff of public health dentists who go into the elementary schools to conduct mouth health education programs. When a dentist is sent to a county he reports to the County Health Officer and works as a member of the local health department staff. The counties share in the expense of the program. In each local health budget there is an item for dental services which, in all but the six counties having full-time dentists, means for participating in the services offered by the Division of Oral Hygiene. Each county defrays approximately one-half of the expense of the program in that particular county, and the State Board of Health takes care of the balance. Each county has a local practicing dentist as one of the members of its County Board of Health.

During the biennium, the staff of the Division of Oral Hygiene consisted of the Director, an average of 12 school dentists, an educational consultant, an artist, 2 puppeteers, and clerical help. Mouth Health Programs were conducted by the staff dentists in 67 counties.

In presenting the statistical report we note with gratification a slight upward trend in the number of children receiving the service. Indeed, it appears that 1954 marked a turning point after the difficult and discouraging decade between 1942 and 1952. Since 1942 it has been impossible to maintain a staff of dentists adequate in numbers to meet the demands for the service. However, during the past two years our efforts in the area of recruitment have been more fruitful. We should, as soon as possible, double the staff.

The report indicates that dentists on the staff of the Division of Oral Hygiene worked in 914 schools in 67 counties. These figures are deceiving because no school received as much time as was needed, and in most of the 67 counties, there were schools which received no service. Allowing for the six counties with full time public health dentists, 27 counties needing the service had to be left out. As another means of pointing up the need for more public health dentists let us compare the number of children receiving attention with the number needing attention. During the two years, the dentists inspected the mouths of 175,000 children in the elementary schools. This would seem to be a large number but it is, in reality, only one-third of the more than 500,000 children enrolled in the elementary schools of the 94 counties eligible for the service.

In pointing out the need for more dentists we would not minimize in the least the volume and value of the services rendered by the present staff members as summarized in the following report.

### Summary of Corrective and Educational Work by Dentists

Average number school dentists on staff . . . . .	12
Number of counties served . . . . .	67
Number of elementary schools visited . . . . .	914
Number of children—mouths inspected . . . . .	175,468
Number of underprivileged children receiving dental corrections . .	58,581
Total number of operations . . . . .	239,975

### AMOUNT AND CLASS OF TREATMENT ITEMIZED AS FOLLOWS

Number amalgam fillings . . . . .	28,000*
Number cement fillings . . . . .	7,551
Number silver nitrate treatments . . . . .	88,973
Number teeth extracted . . . . .	47,332**
Number children - teeth cleaned . . . . .	48,397
Number miscellaneous treatments . . . . .	14,934
Number sodium fluoride applications . . . . .	4,788
TOTAL . . . . .	239,975

\* Number teeth *filled* that were six year molars . . . . . 19,022

\*\* Number teeth *extracted* that were six year molars . . . . . 8,259

Number classroom lectures on Mouth Health by dentists . . . . .	4,588
Total attendance at lectures . . . . .	186,752
Number children referred to local dentists . . . . .	95,315

We call attention to some other significant figures in the foregoing statistical report. During the biennium, 186,752 children received classroom instruction in dental health from the school dentists. They became acquainted with a dentist and learned to consider him as a friend. This is especially important when it is realized that 55 per cent of our children have never been in a dental office.

Almost 60,000 underprivileged children received necessary dental corrections. These are the children who, otherwise, would not have had dental attention. It would be impossible to estimate in terms of prevention



the benefits received by this group of children. The 19,000 six year molars filled may be regarded as that many permanent teeth saved. Even the 8,259 six year molars which had to be extracted tell a story of the relief of pain and the prevention of still more serious ills through the removal of sources of infection.

More than 95,000 children were referred by the school dentists to dentists in private practice. These are the children whose parents are financially able to take care of their needs but who need to be reminded. The Division of Oral Hygiene strives constantly to develop, on the part of the parents and children, an appreciation of good dental health and an awareness that there is a definite relationship between an unhealthy mouth and systemic disease.

While the services listed in the statistical report are, of necessity, limited to the counties and schools in which the staff dentists conducted programs, other services of the Oral Hygiene Division are available to all counties and schools.

Dental health literature is written, illustrated, and reproduced by members of the staff of the Division of Oral Hygiene. This literature (consisting of helps for teachers; graded dental health materials for classroom use; leaflets and booklets for distribution by local health departments and by dentists in private practice; and charts, posters, and news releases for school and classroom bulletin boards) is available, upon request, to the teachers. Many teachers, we are glad to report, take advantage of this service.

The Puppet Show continues to be popular with the children and their teachers. More than 300,000 children learned from Little Jack the rules for taking care of their teeth. In connection with the puppet show there is a dental health museum in the Oral Hygiene Building. This is visited by groups of school children who come from over the State to see the sights of the Capital City.

The activities of the Division as well as its dental health message have been presented to professional groups and to the general public through talks by the director and other staff members, newspaper articles, radio programs, and exhibits. Exhibits were presented at the annual meetings of the State Medical and Dental Societies and at the North Carolina State Fair. Exhibits were also loaned to County Health Departments.

Teachers constitute a group to whom special efforts are directed. The Director meets with classes in teacher training institutions of the State. The Director, staff dentists, and the health educator meet with groups of teachers throughout the State. Many teachers visit the Oral Hygiene Building to secure teaching materials and suggestions.

The Division of Oral Hygiene offers services to the dentists in private practice. Literature is available to them for distribution to their child patients and to parents. Sodium Fluoride, for topical application to children's teeth, is also furnished them. To keep them informed of the Division's activities and also to stimulate their interest in working for children, a news sheet, "Tooth News," is published and mailed to the private practitioners periodically.

The Division of Oral Hygiene has cooperated with the members of the dental profession in promoting the fluoridation of municipal water supplies. Evidence continues to point to this as a sound public health measure for the prevention of tooth decay. During the biennium, 5 North Carolina towns joined the ranks of those in which fluoridation is in operation. This brings the total of 23 cities with a combined population of more than 650,000. In many other towns the matter is under consideration. To aid the communities in securing popular acceptance of fluoridation, the Division has published a booklet and a leaflet on the subject. These are available upon request. The North Carolina State Board of Health recommends fluoridation and stands ready to assist the communities.

It must always be kept in mind that fluoridation is only one preventive measure. Prevention through education and the *early* detection and correction of dental defects must still receive the major emphasis. We must have more public health dentists to go into the schools to the end that this generation of children may, by having better dental health, become healthier, happier, and more useful citizens.

# **BIENNIAL REPORT**

of

## **POSTMORTEM MEDICOLEGAL EXAMINATIONS COMMITTEE**

A committee on Postmortem Medicolegal Examinations in the State Board of Health was authorized by Chapter 972, Public Laws of North Carolina, 1955, to be effective January 1, 1956. This Committee was activated, with the following membership: Dr. J. W. R. Norton, Chairman; Dr. K. M. Brinkhous, Chapel Hill, Secretary; Dr. W. D. Forbus, Durham; Dr. S. Foushee, Winston-Salem; Mr. Holt McPherson, High Point; Mr. Harvey W. Marcus, Attorney-General's Office, Raleigh; and Mr. J. W. Powell, State Bureau of Investigation, Raleigh. Mr. Robert E. Cooper succeeded Mr. Marcus on the Committee in late 1956. The Committee is charged with administration of a new Medical Examiner system which individual counties of the State may join by resolution of the Board of County Commissioners. The Committee, with the help of Dr. J. H. Hamilton, Raleigh, and Dr. W. W. Forrest, Chapel Hill, have set-up the outlines for the operation of this new system. Provisions have been made for appointment of County Medical Examiners in counties under the system. The County Medical Examiner is a qualified physician, recommended by the County Board of Commissioners and the Committee, and appointed by the Chairman of the Committee. Provisions also were made for the establishment of Districts and the appointment of District Pathologists. The North Carolina State Pathological Society has aided the Committee in arranging for pathologic services for the system. An essential part of the operation of the new system is the provision for toxicological analyses on post-mortem and related material. Plans have been developed proposing the establishment of a State Toxicology Laboratory possibly at the University of North Carolina. Until this is accomplished, toxicologic analyses will be handled on a case basis by Dr. Haywood Taylor, biochemist, at Duke University. The development of a handbook to serve as a guide to County Medical Examiners and District Pathologists was prepared for the Committee by Dr. W. W. Forrest, and should be available for distribution in March 1957. Union County was the first county to elect to come into the system. Polk, Cumberland, and Wilkes Counties are the other counties which have come into the system. The Committee has been active in disseminating information regarding this new system, and has been aided in this regard by a Committee of the Medical Society of the State of North Carolina of which Dr. John H. Hamilton is Chairman. The latter group sponsored a talk by Dr. Richard Ford, Professor of Legal Medicine, Harvard Medical School, on the activities of Medical Examiners before the annual meeting of the North Carolina Association of County Commis-

sioners in Winston-Salem in August 1956. The Committee is cooperating with the Institute of Government, University of North Carolina, which is providing a short course for Medical Examiners and Coroners in the Spring of 1957.

No appropriation was provided by the 1955 General Assembly for the Committee. The small expenses incurred so far have been provided from funds of the State Board of Health. A request for necessary operating funds is prepared for submission to the 1957 General Assembly.

J. W. R. Norton, M.D.,  
Chairman.



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